VI Ogólnopolska i Międzynarodowa Konferencja Naukowa „Interdyscyplinarne Aspekty Chorób Skóry i Błon Śluzowych”

28.02–1.03.2020 r.

Streszczenia

VIA MEDICA

Forum Dermatologicum
2020, tom 6, nr 1

ISSN 2451–1501

SZANOWNI PAŃSTWO, SZANOWNI CZYTELNICY „FORUM DERMATOLOGICUM", DROGIE KOLEŻANKI I KOLEDZY!

To już nasza **szósta edycja ogólnopolskiej konferencji studentów i młodych lekarzy „Interdyscyplinarne Aspekty Chorób Skóry i Błon Śluzowych"**, na którą pragniemy Państwa serdecznie zaprosić.

Pierwszym krokiem, aby z czasem uczynić konferencję międzynarodową, była decyzja o stworzeniu w tym roku możliwości zaprezentowania prac po angielsku. **Zaprosiliśmy także zagranicznych profesorów: dr Catherine Stefanato i dr Mohamada Goldusta, specjalistów z dziedziny dermatopatologii i dermatologii,** do podzielania się swoją wiedzą z naszym środowiskiem uczelnianym oraz receptą na międzynarodową karierę.

Konferencja organizowana jest przez Studenckie Koło Naukowe Kliniki Dermatologicznej Warszawskiego Uniwersytetu Medycznego i **odbędzie się w dniach 28 i 29 lutego, a część warsztatowa obejmująca kursy: dermoskopowy pod kierunkiem dr n. med. Olgi Warszawik-Hendzel, dermatopatologiczny pod kierunkiem dr n. med. Magdaleny Misiak-Gałązki oraz dermatochirurgiczny pod kierunkiem dr n. med. Marty Sar-Pomian — 1 marca 2020 roku.** Konferencja będzie się odbywać w owianym ponad 100-letnią historią dermatologii budynku kliniki przy ul. Koszykowej 82A.

Możliwość dotarcia do **szerokiego grona odbiorców oraz opublikowanie streszczeń jest możliwe dzięki uprzejmości Pana Profesora Adama Reicha, Redaktora Naczelnego „Forum Dermatologicum" i wiceprzewodniczącego sekcji „Forum Młodych" oraz przewodniczącej Sekcji „Forum Młodych" Polskiego Towarzystwa Dermatologicznego Pani Profesor Aleksandry Lesiak, a także dzięki wydawnictwu Via Medica.** Pragniemy ponownie podziękować za ten gest i wyjście naprzeciw oczekiwaniom studentów, przyszłych lekarzy zainteresowanych odkrywaniem dermatologii, piękna medycyny i jej interdyscyplinarności.

Konferencja „Interdyscyplinarne Aspekty Chorób Skóry i Błon Śluzowych" powstała w celu wymiany wzajemnych doświadczeń dotyczących objawów dermatologicznych w rożnych dziedzinach medycyny. Ku naszej radości konferencja cieszy się dużym powodzeniem, co świadczy o wspólnej potrzebie jej współtworzenia przez studentów i lekarzy różnych specjalności z całej Polski. **Otrzymaliśmy zgłoszenia z różnych klinik i ośrodków naukowych. Ten fakt wskazuje na duże zainteresowanie zagadnieniami związanymi z dermatologią oraz prawidłową interpretacją zmian skórnych w codziennej praktyce lekarzy wielu specjalności**.

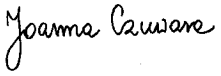
Nie budzi wątpliwości, że **współczesna medycyna opiera się na specjalistycznej współpracy interdyscyplinarnej.** Naukowcy przekuwają swoje odkrycia na grunt medycyny klinicznej, a klinicyści poszukują odpowiedzi na swoje pytania w badaniach naukowych. Wzajemna wymiana doświadczeń tworzy płaszczyznę porozumienia. To właśnie **dzięki ludziom młodym, dociekliwym, zmotywowanym i ciekawym odkryć kształtuje się medycyna teraźniejszości, a rodzi przyszłości.** Wyrażamy nadzieję, że taką możliwość daje między innymi nasza konferencja o zasięgu interdyscyplinarnym i ogólnopolskim, a przynajmniej takie jest jej zamierzenie.

Naszą konferencję patronatem objęli najznamienitsi lekarze z Warszawskiego Uniwersytetu Medycznego, Polskiego Towarzystwa Dermatologicznego i Izb Lekarskich, a współtworzą lekarze z całej Polski, co bardzo nas cieszy i motywuje do dalszego działania.

W imieniu organizatorów, studentów i lekarzy **serdecznie zapraszamy do zaszczycenia nas swoją obecnością 28 i 29 lutego oraz 1 marca w Katedrze i Klinice Dermatologicznej w Warszawie** oraz zapoznania się z tematyką poruszanych zagadnień na stronach „Forum Dermatologicum".

Wyrażamy nadzieję, że tegoroczne zagadnienia zapoczątkują **inspirujące dyskusje, znamienici goście natchną swoją pasją, poszerzą rozumienie znaczenia diagnostyki dermatopatologicznej i nowoczesnych terapii, a taka niepowtarzalna okazja wymiany doświadczeń zrodzi nowe pomysły i zaowocuje współpracą** na przyszłych interdyscyplinarnych konferencjach naukowych.

Z wyrazami szacunku



VIA MEDICA

Forum Dermatologicum
2020, tom 6, nr 1, 15–32

ISSN 2451–1501

SESJA PRZYPADKÓW KLINICZNYCH (JĘZYK ANGIELSKI)

NIETYPOWY PRZEBIEG POSOCZNICY MENINGOKOKOWEJ U 17-MIESIĘCZNEJ DZIEWCZYNKI. OPIS PRZYPADKU
AN UNUSUAL COURSE OF MENINGOCOCCAL SEPSIS IN A 17-MONTH-OLD GIRL. CASE REPORT

Julia Wierzbicka

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Introduction: Meningococcal sepsis is a life-threatening infectious disease caused by Neisseria meningitidis — a gram-negative bacterium that is spread through saliva and respiratory secretions. The most vulnerable group for severe course are young children. The characteristic manifestation of meningococcemia is a skin rush, which may advance from a few lesions to a widespread petechial eruption.
Case description: A 17-month-old girl was admitted to the Department of Children's Infectious Diseases due to fever and malaise. The interview revealed a 2-day history of pyrexia and 24-hour history of skin lesions. The patient was not vaccinated against meningococci. Physical examination displayed petechiae on the distal parts of lower extremities and 2 to 5 millimeter hemorrhagic lesions. Tachycardia, cough and sore throat also occurred. Laboratory tests revealed increased inflammatory markers: procalcitonin (23.88 ng/mL; normal < 0.5 ng/mL), C-reactive protein level (85 mg/L; normal: < 10 mg/L) and leukocytosis (17.7 K/µL; normal: 4.0–17.5 K/µL). Due to suspicion of general infection, the patient was treated with intravenous ceftriaxone, vancomycin and fluids. Blood culture revealed the presence of Neisseria meningitidis serotype B, which confirmed the Invasive Meningococcal disease (IMD). After 10 days of treatment the patient was discharged home in a good general condition with the recommendation of follow-up examination in a month.
Conclusions: Meningococcal sepsis may not manifest in a way, that can make parents seek medical advice immediately. Unvaccinated children have increased risk of IMD. Although IMD's course is severe and the prognosis is uncertain in children, the reported case shows that full recovery is possible.

KŁYKCINY KOŃCZYSTE U CIĘŻARNEJ — OPIS PRZYPADKU
CONDYLOMATA ACUMINATA IN PREGNANCY — CASE REPORT

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Introduction: Condylomata acuminata (CA, anogenital warts) are benign epithelial proliferations caused by human papilloma virus (HPV), typically located on external genitalia, perineal skin, perineum or groin. CA usually manifest as soft papules or plaques. In most cases, HPV is sexually acquired. Low-risk HPV 6 and/or 11 are usually detected in patients with anogenital warts. Possible treatment options include imiquimod, podophyllotoxin, sinecatechins, cryotherapy, trichloroacetic acid (TCA), and surgical removal. In pregnant women with CA cesarean delivery is recommended if warts obstruct the birth canal.
Case description: A 37-year-old woman G4P3 presented with extensive anogenital warts, HCV infection and gestational cholestasis. HBV, HIV, syphilis tests were negative. At 28 week gestation cryopteraphy was administered and the anogenital warts slightly reduced. Cesarean section was successfully performed at 37 week of gestation. A baby of undefined sex was born and transferred to NICU due to respiratory problems and congenital adrenal hyperplasia.
Conclusions: HPV infection is the most common sexually transmitted disease and its prevalence is high among young people such as women in reproductive age. The infection can be vertically transmitted and cause mucosal, conjunctival or laryngeal diseases. Possible treatment options do not eradicate HPV, they are only symptomatic. Use of the vaccine during pregnancy was proposed, however there is no data to support this theory. This underlines the importance of HPV vaccination in young girls.

PARANEOPLASTYCZNE ZAPALENIE SKÓRNO-MIĘŚNIOWE JAKO WCZESNA PREZENTACJA SUROWICZEGO RAKA JAJNIKA
A PARANEOPLASTIC DERMATOMYOSITIS AS AN EARLY PRESENTATION OF THE OVARIAN SEROUS CANCER

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Introduction: Dermatomyositis (DM) is an autoimmune connective tissue disorder, which may result from cancer mimicry leading to the production of autoantibodies.
Case description: In June 2019 a 47-year-old female was admitted to the dermatology department after unsuccessful antihistamine treatment initiated by her primary physician for pruritic, violaceus erythema on her forehead, neck area and extensor surfaces of both upper and lower extremities on which there was also noticeable scaling. By this time no additional symptoms, nor any laboratory anomalies were present except for the elevated titer of anti-TIF-1γ antibodies.
A classic DM with malignancy was suspected, which resulted in following with full-body CT scan, an MRI (showed multiple masses occupying the lower pelvis, both adnexa, and the sigmoid colon), and a transvaginal ultrasound (showed a cystic polymorphic mass on the left ovary). Within a month the patient underwent the cytoreductive surgery and was diagnosed with a serous ovarian tumor, FIGO IIb, R-0. By the time of the first scheduled chemotherapy, the patient was urgently admitted to the gynecologic chemotherapy ward with severe weakness of the proximal upper extremities, heliotrope sign, Gottron's sign, and nodules, what warranted an initiation of steroid therapy by the consulting rheumatologist. Currently, the patients has completed her second cycle of chemotherapy, the myopathic symptoms disappeared and her cutaneous involvement diminished.
Conclusions: Since the full pathognomonic presentation of DM may develop gradually, a diagnostic follow-up should follow an early suspicion for a neoplasm to be detected early enough to improve the prognosis.

POZASUTKOWA POSTAĆ CHOROBY PAGETA. OPIS PRZYPADKU
EXTRAMAMMARY PAGET DISEASE. A CASE REPORT

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Introduction: Extramammary Paget disease (EMPD) is a rare dermatosis affecting genital areas of elderly people. EMPD manifests itself as a well-demarcated, erythematous lesion which may bleed, erode, ulcerate or appear scaly and atrophic. The incidence of EMPD refers to people between their 50s and 70s, with the peak of age of 65. Despite that EMPD counts for less than 2% of vulvar neoplasms and comprises even less percentage of primary neoplasms of other body parts, it may significantly decrease patients' quality of life.
Case description: We report a case of 70-year-old Caucasian man who presented with extensive, ill-defined erythematous and erosive skin lesions on penile skin that enlarged during eight months. He denied

any associated symptoms. The patient was treated with topical GKS and antifungals which did not improve the lesions.
Physical examination revealed a 4 × 3 cm, slightly flaky or oozing plaque on penile skin. Erosions occurred on an erythematous base.
Biopsy with immunohistochemical staining revealed an intraepidermal proliferation of pagetoid cells with large pleomorphic nuclei and plenteous pale cytoplasm.They expressed characteristic immunophenotype. Additionally, chronic inflammation in the dermis was noticed. EMPD was diagnosed.
Conclusions: The macroscopic picture of EMPD in the presented case was atypical with a short history and could lead to misdiagnosis. Confusing clinical features of EMPD frequently cause diagnostic difficulties due to mimicking of inflammatory and infectious diseases, as well as melanoma or squamous cell carcinoma. The correct diagnosis is crucial in the secondary type of EMPD, when uroepithelial malignancy is the underlying cause.

WYŁYSIAJĄCE ZAPALENIE MIESZKÓW WŁOSOWYCH JAKO RZADKIE DZIAŁANIE NIEPOŻĄDANE AFATYNIBU
FOLLICULITIS DECALVANS — RARE SIDE EFFECT OF AFATINIB THERAPY

Kamil Fret, Joanna Nowaczyk

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Introduction: Epidermal growth factor receptor (EGFR) is one of the therapeutic targets in oncology of solid tumours originating from epithelial tissue, such as non-small-cell lung carcinoma (NSCLC), colon cancer or breast carcinoma. Due to the drug action profile, EGFR inhibitors cause a spectrum of dermatological side effects, including acne-like papulopustular rash, nail and hair disturbances, dry and sensitive skin and sore mucous membranes. Folliculitis decalvans (FD), a scarring form of alopecia with characteristic "doll-like" hair tufts, is a rare condition and an extremely uncommon complication.
Case description: We present two cases of women diagnosed with pulmonary adenocarcinoma and treated with an EGFR inhibitor — afatinib, who were referred to dermatology due to significant hair loss and scalp scale crust after 6 months of drug introduction. The trichoscopic examination showed characteristic features such as twisted hair, hair tufts, follicular hyperkeratosis, yellow purulent discharge, blood extravasation and hairless areas. On this basis, folliculitis decalvans was diagnosed. Both patients received doxycycline with improvement.
Conclusions: Only 8 cases of FD as a complication of therapy with EGFR inhibitors were described in literature and neither of them resulted from afatinib. All cases including ours presented the typical dermatological adverse events of EGFR inhibitors prior to onset of FD. The average time from the beginning of anti-EGFR therapy to the first symptoms of alopecia is 3 months (range 0–7 months). FD may lead to irreversible total hair loss therefore the early diagnosis and introduction of the right treatment is very important.

OCHRONOZA — OBJAW ZESPOŁU, CZY JEDNOSTKA CHOROBOWA? PRZEGLĄD LITERATURY I PREZENTACJA PRZYPADKU KLINICZNEGO
OCHRONOSIS — A SYMPTOM OR A DISEASE? LITERATURE REVIEW AND CASE REPORT

Michał Budzikowski

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Introduction: Alkaptonuria is a genetic disorder of phenyloalanine and tyrosine metabolism caused by a mutation in both alleles of HGD gene for the enzyme homogentisate 1,2-dioxygenase. In this condition the body accumulates an intermediate product — homogentisic acid — in blood and tissues, causing silver discolorations in connective tissues such as skin, cartilage and tendons as well as systemic abnormalities.
Case description: A 35-year-old deaf from birth woman presented to our department in November 2017 with grey discoloration of skin of eyelids, temples and forehead that appeared in the early childhood. She hadn't sought medical advice beforehand. A biopsy was performed and revealed many yellow-brown, banana-shaped fibers of the pigment in the dermis that best matched ochronosis. The patient was admitted to a hospital for further diagnostic investigation that revealed similar discolored stains in her left conjunctiva, elevated prolactin level and vitamin D deficiency as well as osteoarthritis of the spine. A homogentisic acid concentration in urine was measured as well as MRI of the brain due to the elevated prolactin. Both tests showed no abnormalities.
Conclusions: Ochronosis is a very rare disease, however it might be a cause of many systemic conditions. Dermatologists are often first to see the patient, that's why they have to be vigilant when coming across discolored, silverish skin changes. Even though we still don't have an effective treatment, some dietary restrictions might be helpful to slow the disease deterioration.

POKRZYWKA BARWNIKOWA — KIEDY O NIEJ MYŚLEĆ?
URTICARIA PIGMENTOSA — WHEN SHOULD IT BE CONSIDERED?

Weronika Wiśniewska, Natalia Wierzejska

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Introduction: Urticaria pigmentosa is the most common presentation of cutaneous mastocytosis, that often develops in infancy or early childhood. It is characterized by excessive amounts of mast cells in the skin. Skin symptoms include red or brown spots on the skin, typically around the chest and forehead. It can affect only the skin or have systemic involvement.
Case description: We herein describe the case of a 65-year-old female patient presenting with multiple purple, not itchy papules located on arms, legs, and trunk. The lesions were compatible with urticaria pigmentosa and confirmed by biopsy. The patient was treated for cutaneous mastocytosis for 15 years and now was hospitalized because of exacerbation of the disease. She was also admitted to the hospital to rule out systemic involvement of the disease. Chest X-ray, abdominal ultrasonography and laboratory tests were performed, revealing no abnormalities associated with mastocytosis. The patient was treated with second-generation antihistamine medication — bilastine.
Conclusions: Based on the case report it should be concluded, that urticaria pigmentosa can occur during adulthood. Skin symptoms may not include itchiness. The diagnosis is mostly clinical, in some cases a skin biopsy is required to confirm the diagnosis. Antihistamines are the first line of treatment.

ŁYSIENIE ANDROGENOWE — RZADKA PRZYCZYNA ŁYSIENIA U DZIECI
ANDROGENETIC ALOPECIA — A RARE CAUSE OF HAIR LOSS IN CHILDREN

Anna Przeździak, Zuzanna Sitkowska, Anna Waśkiel-Burnat

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Introduction: Androgenetic alopecia is the most common cause of hair loss in both women and men. The prevalence of the disease increases with age. Androgenetic alopecia is rarely observed in prepubertal children. In most of the cases in children with androgenetic alopecia, there is a strong family history of androgenetic alopecia. Moreover, the disease may be associated with premature puberty and/or hyperandrogenism.
Case description: A 10-year-old girl, with coexisted obesity, presented with the gradual hair loss for 2 years. The patient was premenarcheal. Her mother suffered from androgenetic alopecia. In clinical examination, hair loss in the midscalp area and slight enlargement of breasts were observed. No axillary or pubic hair were presented. In trichoscopic examination, hair shaft thickness heterogeneity, increased number of single-follicular units and decreased number of triple-follicular units were detected. In laboratory tests and abdominal ultrasound, no abnormalities were observed. In gynecological examination, no significant

abnormalities were reported. Based on clinical picture and additional tests, the patient was diagnosed with androgenetic alopecia and treated with minoxidil 2% once a day.
Conclusions: Androgenetic alopecia is a rare cause of hair loss in prepubescent children. This diagnosis should be considered after excluding other frequent cases of hair loss in children (such as tinea capitis, alopecia areata, loose anagen hair syndrome, telogen effluvium or trichotillomania). Further, premature puberty and hyperandrogenism should be always excluded.

AGEP — OBRAZ KLINICZNY, DIAGNOSTYKA I LECZENIE
AGEP — CLINICAL PICTURE, DIAGNOSIS AND TREATMENT

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Introduction: Acute generalized exanthematous pustulosis (AGEP) is usually a drug-related skin disease characterized by sudden appearance of generalized severe nonfollicular, sterile pustules on an erythematous background and is accompanied by elevated body temperature and leukocytosis with neutrophilia. AGEP can also develop after infections, insects bites or contrast used in radiological studies.
Case description: A 42-year-old woman was admitted to hospital with generalized pustule on an erythematous base, which occurred after intake of ciprofloxacin, a complex drug containing paracetamol, dextromethorphan, pseudoephedrine due to respiratory tract infection and after the exposure to seasonal plant spraying. On admission leukocytosis with neutrophilia, normocytic anemia, hypokalemia, hyponatremia, hypertriglyceridemia, elevated CRP, hyperglycemia, leukocyturia were observed. The patient met the criteria for diagnosing AGEP according to the EuroSCAR Project — 10 points. Cyclosporin i.v. treatment and anticoagulant prophylaxis with enoxaparin was introduced, resulting in the resolution of skin lesions and normalization of other parameters. Approximately 3 months later, the patient was rehospitalized for AGEP after using NSAIDs. After parenteral glucocorticosteroid therapy, a skin change resolution was obtained. The third episode of AGEP occurred after six months from the first one and was associated with MRI with contrast. Rapid improvement was achiev ed when GCs were used.
Conclusions: AGEP is an uncommon disease. Its estimated incidence is 1–5 per million people a year. It has to be distinguished from other pustular diseases in particular GPP. In treatment, it is crucial to identify and discontinue the causative agent. It usually has a favorable prognosis once the correct diagnosis is made.

SESJA PRAC POGLĄDOWYCH (JĘZYK ANGIELSKI)

ZESPÓŁ OSPY WIETRZNEJ WRODZONEJ I OSPA NOWORODKOWA — DWA OBLICZA WERTYKALNEJ INFEKCJI WIRUSEM OSPY WIETRZNEJ I PÓŁPAŚCA
CONGENITAL VARICELLA SYNDROME AND NEONATAL CHICKENPOX — TWO FACES OF VERTICAL VARICELLA-ZOSTER VIRUS INFECTION

Carlo Bieńkowski

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Both congenital and newborn chickenpox are viral infectious diseases caused by varicella-zoster virus (VZV) infection. Congenital varicella syndrome occurs in 2% of newborns whose mothers had chickenpox during pregnancy, especially if the mother was infected between 8 and 20 weeks of gestation. The characteristic symptoms of congenital chickenpox in newborns include: skin scars, hypoplasia of the extremities, ocular defects (cataracts, choroiditis and retinitis, microphthalmia). In the case of central nervous system involvement, microcephaly, hydrocephalus, calcification in the brain, and aplasia of the brain structures may occur. A higher risk of disseminated and severe chickenpox is in newborns whose mothers became ill between 5 days before delivery and 2 days after delivery (neonatal chickenpox). Neonatal chickenpox is a severe disease, with changes in internal organs and with mortality rate about 30%. This is due to the fact that the mother does not pass protective antibodies to the child, but the transplacental transmission of the virus occurs. Specific methods for the prevention of VZV infection include: vaccination (at least 4 weeks before conception) for women planning pregnancy (who did not have chickenpox before or have not beenvaccinated), and administration of varicella specific immunoglobulin (VZIG) in non-immune pregnant women, after contact with the virus, and newborns of mothers who had chickenpox between 5 days before delivery and two days after delivery. If pregnant women become ill and in case neonatal chickenpox, the treatment with acyclovir should be initiated immediately.

RÓŻYCZKA JAKO CHOROBA WYSYPKOWA POWODUJĄCA WADY ROZWOJOWE
RUBELLA AS AN EXANTHEMATOUS DISEASE CAUSING CONGENITAL DEFECTS

Joanna Gębarowska

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Rubella is a viral, exanthematous infectious disease. It occurs mainly in children, but may also occur in adults. Since the introduction of routine vaccination against rubella in 1989 in Poland, the incidence of the disease has decreased significantly. The rubella virus causes a self-limited infection in most hosts, with the typical erythematous, maculopapular rash and mild systemic symptoms. The course of the disease is usually mild, but it may be dangerous for pregnant women. Rubella virus is classified as one of the pathogens that may cause serious fetal defects. The risk of congenital infection is the highest during the first 12 weeks of pregnancy. The infection may lead to miscarriage, fetal death in utero, preterm delivery or congenital defects. Classic manifestation of congenital rubella syndrome (CRS) consists of a characteristic triad of disorders (Gregg's Triad) including auditory, ocular and cardiovascular abnormalities. CRS may also include symptoms from other organs (central nervous system, thyroid, bones). In April 2012 WHO launched a global plan, which establishes elimination of rubella in at least five ofthe six regions by 2020. Although the number of countries vaccinating against rubella increases, cases of vertically infected newborns are still reported. It is important to remember about proper prophylaxis while planning pregnancy. Vaccination against rubella at least 4 weeks before conception is necessary in order to minimalize the risk of the congenital disease.

CHIRURGIA MIKROGRAFICZNA METODĄ MOHSA
MOHS MICROGRAPHIC SURGERY

Karolina Wojcik

University of Greenwich

Mohs micrographic surgery (MMS) is an intraoperative technique which involves the processing of fresh (unfixed) tissue for complete surgical margin evaluation utilising the staining offrozen sections. The Mohs technique, developed by Dr Frederic Mohs, is used to determine the successful excision of cutaneous malignancies, including basal cell carcinoma (BCC 99%) and squamous cell carcinoma (SCC). As apart of this procedure, hematoxylin and eosin staining remains the staple method for microscopic evaluation for pathological diagnosis and interpretation of these tumour types. Mohs surgery is indicated when the cancer is in a difficult area, where it is essential to preserve healthy tissue for the maximum functional and cosmetic result. Other indications include recurrent tumours, poorly defined surgical margins, rapidly growing skin cancers or skin cancers with aggressive histologic patterns (e.g. BCC, SCC), and skin cancers in patients with underlying immunosuppression. MMS requires equipment for the operating room as well as for the lab in which tissue is processed and examined microscopically. In the histology laboratory, the Mohs specimenis processed as a fresh (unfixed) sample by orientating, embedding and sectioning in a cryostat. Consequently, slides arestained with H&E by hand or using an autostainer. The slides are then reviewed by a Mohs surgeon, who examines the sections for cancerous cells if cancer is still present, the more tissue is removed, and the process is repeated until no cancer cells are found. Mohs Surgery has made significant advances in patient care, by recovering quicker from the surgery, which is easier to tolerate and produces a smaller scar.

PRZECIWCIAŁA PRZECIWJĄDROWE W TOCZNIU RUMIENIOWATYM UKŁADOWYM
ANTINUCLEAR ANTIBODIES IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Systemic lupus erythematosus (SLE) is a chronic inflammatory and autoimmune syndrome accompanied byproduction of a wide spectrum of antinuclear antibodies (ANA) directed to a variety of nuclear and cellular components. These components include: nucleic acids, histones, phospholipids, cytoplasmic proteins, and other autologous antigens. According to the latest 2019 EULAR/ACR Classification Criteria for SLE ANA at a titer of ≥ 1:80 are a required entry criterion.
The aim of the study was to review the literature for the importance of different types of ANA in SLE. In total 35 articles were analyzed.
There are two SLE-specific antibodies: anti-dsDNA and anti-Smith (Sm) antibodies.
The prevalence of anti-dsDNA antibodies is 60–90%. They are associated with glomerulonephritis. The levels of circulating anti-dsDNA antibodies fluctuate with disease activity and are serially monitored to assess its progression.
The anti-Sm antibodies are detected in 20% of Caucasian patients and 30–40% of others. They are said to be the biomarkers of lupus nephritis. They correlate with central nervous system involvement, lung fibrosis, pericarditis.
Other antibodies found in SLE include: anti-nucleosome, anti-snRNP, anti-SSA/Ro, anti-SSB-La, anti-phospholipid, anti-2GP1, anti-C1q, anti--ribosomal P protein, anti-NMDAR, anti-histone, anti-PCNA antibodies.
There is the association between positive anti-SSA/Ro and anti-SSB/La antibodies in pregnant women and neonatal lupus. Congenital heart block is the most serious symptom of this syndrome.
Anti-phospholipid antibodies are related to antiphospholipid syndrome. The disorder characterized by among others vascular thrombosis, pregnancy-related problems.
Conclusion: Different types of ANA found in SLE affects the course of disease and variety ofits clinical manifestations.

PIERWOTNY OBJAW RAYNAUDA: AKTUALNE METODY LECZENIA
PRIMARY RAYNAUD'S PHENOMENON: CURRENT TREATMENT OPTIONS

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Raynaud's phenomenon (RP) is defined as temporary peripheral vasoconstriction most commonly caused by exposure to low temperature or emotional stress. It manifests in alteration of the skin colour (first pallor, then cyanosis to erythema) involving distal parts ofthe body (fingers, toes, nose, ears) and is frequently accompanied by pain and paraesthesia. Two forms of RP can be distinguished: primary (idiopathic) and secondary associated with other medical conditions. The diagnosis of RP is based on the clinical history and physical examination. In order to exclude secondary RP, the following criteria have to be fulfilled: normal capillaroscopic pattern and erythrocyte sedimentation ratio, absence of digital ulcerations or erosions, absence of circulating antinuclear antibodies. Treatment of RP depends on its severity. Lifestyle modifications concerning cold protection, avoidance of nicotine, caffeine and vasoconstrictive drugs were reported asessential non-pharmacological management regardless of the exacerbation of RP. The first-line drugs, used in mild RP, are calcium channel blockers (amlodipine and nifedipine). The treatment of moderate RP includes other vasodilators: phosphodiesterase 5 inhibitors (sildenafil, vardenafil) and topical nitrates (nitroglycerin). Severe RP requires intravenous administration of prostaglandins (iloprost, alprostadil). In cases of RP resistant to standard pharmacological treatment, nonpharmacological methods including botulinum toxin A injections and surgical procedure of sympathectomy may be beneficial. This review summarizes current treatment options ofthe primary Raynaud's phenomenon, which may be helpful for doctors of various specialties in the diagnosis and management of this condition.

ZNACZENIE BIOFILMÓW BAKTERYJNYCH W CHOROBACH DERMATOLOGICZNYCH
THE ROLE OF BACTERIAL BIOFILMS IN DERMATOLOGY

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Bacterial biofilm has been defined as a community of various microorganisms in which cells are aggregated in a matrix of extracellular polymeric substances (EPS). The matrix is produced by bacteria and consistsof polysaccharides, nucleic acids, surfactants, proteins, phospholipids andwater. Diverse components of the biofilm are produced in response to specific environmental conditions.
Biofilms enable adhesion to different biotic surfaces such as skin or teeth, and support bacterial growth in these niches. Microorganisms capable of forming biofilms have been found to alter the course of selected dermatological conditions, such as atopic dermatitis (AD), hidradenitis suppurativa (HS), acne vulgaris and presumably many more. The presence of biofilm impedes clearance of potentially harmful microorganisms from the skin, increases local inflammation, and is largely responsible for antibiotic resistance. New therapeutic strategies addressing the biofilm may have positive effect in the treatment of AD, HS and acne, and enable restoration of sensitivity to antibiotics.

WPŁYW MIKROBIOMU NA WYPADANIE WŁOSÓW
THE ROLE OF MICROBIOME IN HAIR LOSS

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The role of microbiome in hair loss has been the object of studies in the past few years. Hair follicles serve as a niche for various microbiota

belonging to bacteria, fungi, mites and viruses. It has been recently reported that not only the upper follicular portion but hair follicle over the entire length may be colonized by bacteria. Microbiota in close proximity to the local immune system and structures essential for regular hair follicle cycling may be linked with pathogenesis of some chronic scalp diseases. The strongest evidence supporting correlations with scalp colonizing microbiota has been identified in seborrheic dermatitis/dandruff and in a type of scarring alopecia named folliculitis decalvans. Recent findings have also showed shifts of scalp microbiome compositions in alopecia areata and androgenetic alopecia. Herein, we review recently published studies on scalp microbiome and discuss a possible role of follicular dysbiosis as a triggering factor or epiphenomenon in scalp diseases leading to either permanent or reversible hair loss.

ŁYSIENIE PLACKOWATE INDUKOWANE LEKAMI
DRUG-INDUCED ALOPECIA AREATA

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Nowadays numerous drugs have the potential of triggering autoimmune diseases, such as bullous pemphigoid, vasculitis or lupus.
Recently, it was also observed that several medications can induce alopecia areata, which is considered to be an autoimmune condition that affects hair-bearing areas of the body, including eyebrows and eyelashes. Exact cause of this disease is complex and unclear. However, the collapse of immune privilege in hair follicles is believed to play a central role in the development of alopecia areata.
In order to reveal the connection between alopecia areata and drugs a systematic review was performed. There are some case reports suggesting that dupilumab, CTLA-4 and PD-1 receptors inhibitors, leflunomide, sorafenib and tumor necrosis factor inhibitors may be triggering factors. Furthermore, the scalp biopsies are consistent with alopecia areata, but occasionally the histological features are different. In some cases, the hair loss was resolved just by discontinuation of suspected drug. In most other cases intralesional or topical corticosteroids were necessary.
It is important to be cautious while providing the aforementioned drugs as they can lead to AA, however, fortunately, it can bereversible. Moreover, scalp biopsy of patients clinically suspiciousfor drug-induced alopecia proved to be helpful to make a properdiagnosis and provide appropriate treatment.

MINOKSYDYL — MECHANIZM DZIAŁANIA I ZASTOSOWANIA KLINICZNE
MINOXIDIL — MECHANISM OF ACTION AND CLINICAL APPLICATIONS

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Minoxidil was first developed in 1960s as an orally administered antihypertensive drug. In a proportion of patients, drug-induced hypertrichosis was observed. Based on this observation the idea to perform clinical trials with minoxidil in patients with hair loss developed. In 1988 minoxidil was approved by FDA for the treatment of androgenetic alopecia (AGA) in its topical form, firstly for males, subsequently for females.
Currently 2% and 5% solution and 5% foam forms are available.
Minoxidil, changed by sulfotransferase into its active form, minoxidil sulfate, acts by opening potassium channels in the cellular membrane of vascular smooth muscle cells and subsequently promoting vasodilation. This may lead to a prolonged anagen phase.
Clinical trials have indicated the efficacy of minoxidil in androgenetic alopecia in women and men. Other indications may include: alopecia areata, hair shaft disorders, telogen effluvium, chemotherapy- induced alopecia, frontal fibrosing alopecia and improving body hair growth including the eyebrows and beard.
Minoxidil is characterised by a good safety profile with few possible adverse events in both 2% and 5% concentrations, such as: contact dermatitis, minoxidil — induced telogen effluvium. 5% foam form presented lower incidence of local intolerance symptoms compared with 2% minoxidil solution. Patients under topical minoxidil treatment should be monitored for scalp changes and local/ generalised hypertrichosis. A novel approach to using minoxidil in dermatology is application of low-dose oral minoxidil in monotherapy or in combination with other drugs in patients with androgenetic alopecia.

ZASTOSOWANIE RCM (REFLEKSYJNEJ MIKROSKOPII KONFOKALNEJ) W DIAGNOSTYCE CHORÓB PĘCHERZOWYCH SKÓRY
THE APPLICATION OF REFLECTANCE CONFOCAL MICROSCOPY IN THEDIAGNOSTIC PROCESS OF VESICULLOBULLOUS DISORDERS

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Vesiculobullous (VB) diseases are a heterogeneous group of disorders characterized by blister formation on the skin and mucous membranes. The diagnosis is based on clinical examination, direct and indirect immunofluorescence as well ason the histopatology. In vivo reflectance confocal microscopy (RCM) is a non-invasive technique, which enables real-time, en-face imaging of the epidermis and the upper part of the dermiswith high resolution close to conventional histopathology. In recent years there is increasing interest in application of RCM in the diagnostic process of VB.
A systematic literature search concerning application of RCM in vesiculobulous skin diseases was performed infollowing databases PubMed, Scopus, The Cochrane Library and Wiley until December 2019. We reviewed 23 papers, mainly case reports and case series.
The most characteristic feature of pemphigus were acantholytic clefts in a lesion as well as in a healthy-appearing skin adjacent to a lesion. While in Hailey-Hailey disease RCM examination showed acantholysis resembling "dilapidated brick wall". In bullous pemphigoid most frequently on RCM optical slides sub-epidermal cleft associated with inflammatory cells infiltration was visible. In patients with allergic and irritant contact dermatitis images obtained by RCM revealed vesicle formation, exocytosis, spongiosis and parakeratosis. RCM was able to detect intraepidermal blister filled with acantholytic cells, multinucleated giant and inflammatory cells in a patients with varicella zoster infection.
RCM offers useful information for the initial differential diagnosis of the VB diseases, however, histopathologic and immunologic examinations remain the gold standard for establishing the final diagnosis.

ZŁUSZCZAJĄCE ZAPALENIE DZIĄSEŁ
DESQUAMATIVE GINGIVITIS

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Desquamative gingivitis (DG) is a clinical finding characterized by mucosal inflammation with an intense erythema, desquamation and ulcers localized on the free and attached gingiva. DG could be a manifestation of many mucocutaneous diseases.
A systemic literature review using key phrase "desquamative gingivitis" was performed in following databases PubMed, Cochrane Library, Clinicalkey, Ebscohost and Medline from January 2009 until December 2019.
The most frequent case of desquamative gingivitis is lichen planus. DG may be also a symptom of pemphigus vulgaris and cicatricial pemphigoid. Other less common causes include erythema multiforme, paraneoplastic pemphigus, graft versus host disease and epidermolysis bullosa acquisita. Patients often also have reduced oral hygiene and irritant or contact allergy to mouthwashes, toothpaste or dental materials. Direct

and indirect immunofluorescence as well as histopathological examination should be performed in all patients to establish the etiology of DG. There are no guidelines for treatment of DG. The treatment should include the therapy of underlying disease. Also improvement of oral hygiene is crucial for improvement of gingival lesions. Summing up DG have multifactorial etiology. The proper determination of etiological factors is crucial for effective treatment.

KANNABINOIDY — OBIECUJĄCE MOŻLIWOŚCI TERAPEUTYCZNE W DERMATOLOGII
CANNABINOIDS — PROMISING AGENTS IN THE TREATMENT OF DERMATOLOGICAL CONDITIONS

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Cannabinoids are a diverse class of chemical compounds that act through cannabinoid and non-cannabinoid receptors. The use of medicinal cannabinoids is currently legalized in a growing number of countries, mainly in the treatment of chemotherapy-induced nausea/vomiting, chronic pain and various neurological conditions. However, their role in dermatology is not established yet.
Recent studies have confirmed the presence of endocannabinoid system in the skin, that consists of CB1/CB2 receptors, endogenous lipid ligands (endocannabinoids) and metabolizing enzymes that maintain the homeostasis in the skin. Its dysregulation plays an important role in pathophysiology of several dermatological conditions, such as acne, psoriasis, atopic dermatitis.
The hypothesized mechanisms of action of cannabinoids consist of: anti-inflammatory, through inhibition of IL-2, HIF-1-alfa, VEGF, bFGF, angiopoitin- 2, IL-8, IL-17 and other pro-inflammatory cytokines and chemokines; anti-pruritic effect, via inhibition of TRPV1 — ion channel expressed in nociceptive neurons and inhibition of keratinocyte proliferation, through activation of CB1/CB2 receptors that induce DNA methylation in human keratinocytes.

Owning to its pleiotropic mode of action, the beneficial effects of cannabinoids in the treatment of several dermatological conditions might be expected. As their positive effects have been observed in cohort studies and small sample sized observational studies in patients with atopic dermatitis, acne, fibrotic skin disease, psoriasis and skin cancer, further research and randomized controlled trials are necessary.

WPŁYW PALENIA NA CHOROBY SKÓRY
THE EFFECT OF SMOKING ON DISEASES OF THE SKIN

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Smoking tobacco is a significant public health threat for both active and passive smokers. It has been associated with causing and exacerbating a number of diseases affecting all systems of the body. Smoking has been shown to be the single most preventable risk factor related to the development of cardiovascular diseases, thus shortening the life expectancy. However, the effects of tobacco smoke as a factor in etiology and course of diseases of the skin and mucous membranes is still mostly unknown. Findings suggest that smoking is a contributing factor in developing or exacerbating psoriasis, pustulosis palmoplantaris, cutaneous lupus erythematosus, porphyria, allergic dermatitis, acne inversa, pemphigus vulgaris, hidradenitis suppurativa as well as cancers of the lip, oral cavity and anogenital region. Other types of neoplasms such as basal cell carcinoma, squamous cell carcinoma and melanoma have a more debatable correlation with smoking. In contrast, smoking seems to have a protective effect against rosacea, Behçet's disease, pemphigus vulgaris and dermatitis herpetiformis. Paradoxically, nicotine has also been shown to be effective as a therapeutic measure in treating Buerger's disease, Behçet's disease, oral lichen planusand erythema nodosum. Additionally, we should not forget that smoking has a detrimental effect on the aesthetic aspect of the skin causing: precocious skin aging, smoker's fingers and fingernails.

SESJA PRAC ORYGINALNYCH (JĘZYK POLSKI)

OCENA ZABURZEŃ SNU U PACJENTÓW Z ŁUSZCZYCĄ
THE ASSESSMENT OF SLEEP DISTURBANCES IN PSORIATIC PATIENTS

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Introduction: Psoriasis is a chronic, inflammatory, systemic disease affecting patients' quality of life but also causing sleep disorders.
Aim of the study: To assess psoriatics' sleep disturbances, the risk of obstructive sleep apnea syndrome (OSAS) and symptoms of restless leg syndrome (RLS).
Materials and methods: In 2018 a survey among 60 psoriatic patients and 40 sex- and age-matched controls was carried out. Epidemiological and clinical aspects of psoriatics were evaluated. All subjects completed several validated and own questionnaires regarding sleep disorders and RLS. The outcomes were statistically analyzed using Chi-squared test ($p = 0.05$).
Results: 31 (51.7%) men and 29 (48.3%) women were enrolled into the study. The mean age of patients was 49.7 years old. 36.6% of patients subjectively perceived their sleep quality as fairly bad or very bad comparing to 15% of healthy group. 78% of psoriatics had poor quality of sleep using PSQI, statistically significantly greater comparing to the control group ($p < 0.00025$), and the mean score was 8.1 vs. 4.41 in control group. 23% of psoriatics had high risk of OSAS using STOP-BANG questionnaire, 30% moderate and 47% low risk. 61.7% of all patients presented different symptoms of RLS (vs. 15% in healthy group) with a mean RLS scale score of 10.05 which is mild severity.
Conclusions: Psoriatic patients have significantly greater risk of sleep disturbances but not of obstructive sleep apnea syndrome. The study suggests the importance of screening patients with psoriasis for conditions affecting sleep because they can decrease life quality.

OCENA JAKOŚCI ŻYCIA I AKTYWNOŚCI FIZYCZNEJ U PACJENTÓW Z ŁUSZCZYCĄ
THE ASSESSMENT OF LIFE QUALITY AND PHYSICAL ACTIVITY IN PSORIATIC PATIENTS

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Introduction: Psoriasis is a chronic, systemic disease negatively affecting the quality of life (QoL) of patients in health-related aspects such as physical, psychosocial and mental functioning.
Aim of the study: To assess the psoriatics' quality of life and exercise attitudes.

Materials and methods: The study included 60 psoriatic patients and 40 healthy volunteers. Clinical and epidemiological aspects of psoriatics were assessed. Several validated and own questionnaires regarding QoL and physical activity were carried out. The outcomes were analyzed using Chi-squared test ($p = 0.05$).
Results: 31 (51.7%) men and 29 (48.3%) women were enrolled into the study. The mean age of patients was 49.7 years old. 20% of patients presented extremely large effect of psoriasis in Dermatology Life Quality Index, 20% large effect and 25% moderate. 60% of patients were satisfied with the health care they received, 28% to an average extent and 12% were dissatisfied. Psoriatics were statistically significantly more dissatisfied with their QoL comparing to the control group ($p < 0.0005$). They also had lower satisfaction score in all four domains of WHO QoL questionnaire. Almost 40% of psoriatic patients maintained mild physical activity, whereas 26% did not engage in any activity comparing to 7.5% of healthy subjects.
Conclusions: Patients with psoriasis have significantly lower life quality and poorer physical activity engagement comparing to the healthy population. Evaluating QoL of psoriatics should be involved into the integrated approach improving the success of treatment and thus social and physical attitudes.

ZNACZENIE METABOLITU BAKTERYJNEGO — TLENKU TRIMETYLOAMINY (TMAO) W ŁUSZCZYCY
THE IMPORTANCE OF BACTERIAL METABOLITE — TRIMETHYLAMINE OXIDE (TMAO) IN PSORASIS

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Introduction: Psoriasis is a chronic inflammatory disease estimated to affect 2–4% of the world's population. Growing evidence suggests significant role of mutualistic relationship with gut bacteria, intestinal barrier and immune system in pathogenesis of psoriasis. Translocation of bacterial metabolites through a damaged intestinal barrier may induce local and systemic inflammation.
Aim of the study: Assessment of serum concentration of trimethylamine N-oxide (TMAO; gut microbiome-derived metabolite) in patients with chronic plaque psoriasis.
Materials and methods: The analysis included 80 patients with psoriasis and 40 healthy controls. The TMAO concentration was measured using high-performance liquid chromatography. Severity of the disease was evaluated using Psoriasis Area Severity Index (PASI) and neutrophil to lymphocyte ratio (NLR). Gut barrier integrity was assessed by measuring claudin-3 concentration in the blood.
Results: Patients with psoriasis were characterized by a significantly higher concentration of TMAO (276.4 ± 82.1 vs 105.2 ± 50.6 ng/mL, $p < 0.05$). Bacterial metabolite concentration showed a positive correlation with the severity of psoriasis assessed with PASI ($r = 0.82$, $p < 0.01$), systemic inflammation expressed as NLR ($r = 0.59$, $p < 0.05$) and altered intestinal barrier evaluated by claudin-3 ($r = 0.64$, $p < 0.05$). In addition, higher values of TMAO were found among patients with psoriasis and concomitant metabolic syndrome.
Conclusions: Dysfunction of intestinal barrier causes translocation of bacterial metabolites and toxins that may result in exacerbation of inflammatory response in psoriasis. It may lead to increasing severity of skin lesions and cause higher risk of comorbidities development.

ANALIZA NIEDOBORU INTERLEUKINY 13 ORAZ WITAMINY D3 JAKO POTENCJALNYCH CZYNNIKÓW NASILAJĄCYCH ŁUSZCZYCĘ
ANALYSIS OF INTERLEUKIN 13 AND VITAMIN D3 DEFICIENCY AS A POTENTIAL FACTOR EXACERBATING PSORIASIS

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Introduction: Previous studies have shown that levels and activity of glucocorticoid receptor (GR) are diminished in psoriatic skin and interleukin 13 (IL-13) promotes the transport of GR to the nucleus. IL-13 also ameliorates the psoriasis-like skin lesions in imiquimod-induced mouse model. Moreover, plaque psoriasis severity correlates with deficient serum levels of 25(OH)D3, which encourages differentiation of Th2 lymphocytes and production of IL-13.
Aim of the study: Taking into account impaired transport of GR to the nucleus may be connected to reduced level of IL-13 in correlation with vitamin D3 deficiency, we examined the serum levels of IL-13 in psoriatic patients to verify the correlation between IL-13 and 25(OH)D3 levels and to evaluate serum IL-13 level with severity of the disease.
Materials and methods: The study included 63 psoriatic patients (19 women, 44 men) during exacerbation of the disease — (median, IQR) PASI (16.1, 10.5–22.5), BSA (27.0, 18.0–39.0). Measurements in patients sera were performed using electrochemiluminescence for 25(OH)D3 (Roche) and ELISA for IL-13 (ThermoFisher).
Results: A significant negative correlation between: PASI and 25(OH)D3 was found ($r = -0.38$, $p = 0.002$) as well as between BSA and 25(OH)D3 ($r = -0.30$, $p = 0.016$). Serum levels of IL-13 didn't significantly correlate with 25(OH)D3 level and severity of psoriasis.
Conclusions: Our study confirmed a well-established association between 25(OH)D3 deficiency and psoriasis severity. Mediatory effect of IL-13 in pathogenesis of psoriasis was not observed. This may be explained there is no direct effect of IL-13, it can be only one component of disturbed cytokines profile or action of IL-13 is transient. This needs to be explored in further studies.

SARKOIDOZA SKÓRNA — ANALIZA RETROSPEKTYWNA MATERIAŁU KLINIKI DERMATOLOGICZNEJ WUM
CUTANEOUS SARCOIDOSIS — A RETROSPECTIVE ANALYSIS OF THE MATERIAL OF THE DEPARTMENT OF DERMATOLOGY

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Introduction: Sarcoidosis is a granulomatous disease characterized by the presence of noncaseating granulomas in organs and tissues, such as the skin, lung, lymph nodes, eyes, joints, brain, kidneys, and heart. Cutaneous lesions may present with a variety of morphologies, including papules, nodules, plaques, infiltrated scars, and erythematosus lesions.
Aim of the study: A retrospective analysis of the medical records of the Department of Dermatology of the Medical University of Warsaw from years 2000–2019 with suspected or confirmed cutaneous sarcoidosis.
Materials and methods: An analysis of two types of medical records was performed:
1) histopathological records with clinical and/or final diagnosis of sarcoidosis;
2) medical records of patients hospitalized with the diagnosis of sarcoidosis.

Results: Among 147 histopathological records (of which 75 with a clinical diagnosis with sarcoidosis) the histopathological diagnosis was confirmed in 28 cases. Moreover another 5 cases were found among patients hospitalized in the Department. In total 33 cases of sarcoidosis were analyzed. The average age of patients was 44 years. 16 women and 17 men were examined. Skin lesions were located on: the upper limbs (19 patients, 57.58%), face (14, 42.42%), lower limbs (13, 39.39%), back (12, 36.36%), abdomen (3, 9.09%), chest (2, 6.06%), and scalp (1, 3.03%). In 72% of cases, skin lesions were nodular in clinical presentation.
Pulmonary involvement was detected in 45% of cases and lymph node involment in 42% of cases. 66.67% of patients received topical treatment and 48.48% were treated systematically.
Conclusions: Cutaneous sarcoidosis may manifest in various forms of lesions. A histopathological examination is mandatory for the diagnosis. Pulmonary and lymph node involvement is a common finding in patients with cutaneous sarcoidosis.

OCENA POZIOMU NAWILŻENIA NASKÓRKA I NATŁUSZCZENIA SKÓRY U PACJENTÓW ONKOLOGICZNYCH W TRAKCIE LECZENIA SYSTEMOWEGO
THE ASSESSMENT OF SKIN HYDRATION AND LUBRICATION IN ONCOLOGICAL PATIENTS RECEIVING SYSTEMIC TREATMENT

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Introduction: Use of cytostatic and molecularly targeted drugs in cancer treatment involves changes in hydration and lubrication of the skin in oncological patients.
Aim of the study: To determine if various systemic oncological treatment schemes interfere with quality of patients' skin, especially its hydration and lubrication.
Materials and methods: The study consisted of 115 patients (53 women, 62 men) aged 23–85 years, hospitalized in the Chemotherapy Department and the Department of Clinical Oncology in the Oncological Centre in Bydgoszcz, from February to August 2019. Measurements of hydration and lubrication levels were performed using Corneometer CM825 and Sebumeter SM815 probes. The skin condition was examined in two areas (forearm and central chest). The obtained results underwent statistical analysis.
Results: In more than 70% of the patients, the epidermis on the forearm was dehydrated, whereas on the central chest only in 23.5%. Skin oiling on the forearm was proper in 86% of the patients, the rest showed decreased amount of sebum in this area. The skin in the chest area was properly lubricated in 44% of patients and 33% had oily skin in that region. Statistical analysis revealed a statistically significant difference between the skin condition of the oncological patients and the control group ($p < 0.05$).
Conclusions: The epidermis of patients receiving anticancer drugs is dehydrated during therapy. Furthermore, the sebum secretion is lowered. Non-physiological hydration and lubrication levels of the skin may promote the appearance of dermal changes, such as itching, papulopustular rash or hand-foot syndrome.

OCENA STĘŻENIA IL-8 W PRZEBIEGU ATOPOWEGO ZAPALENIA SKÓRY I TRĄDZIKU RÓŻOWATEGO
ASSESSMENT OF THE IL-8 CONCENTRATION IN ATOPIC DERMATITIS AND ROSACEA

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Introduction: Numerous immunological disorders and an impaired epidermal barrier function are observed in AD and rosacea. IL-8 is involved in inflammatory responses, angiogenesis and wound healing.
Aim of the study: Assessment of the serum concentration of IL-8 taking into account the epidermal barrier parameters in AD and rosacea.
Materials and methods: The study covered 43 patients with AD, 25 patients with rosacea and 22-person control group. The IL-8 concentration was determined by ELISA assay. The epidermal barrier was assessed with the Tewameter TM300 and Corneometer CM825.
Results: The mean IL-8 concentration values were 10.28 [pg/mL] in AD, 13.81 in rosacea, and 9.63 in the control group. A statistically significant difference in concentration between the studied group and the control group ($Z = 1.98$, $p = 0.038$) was demonstrated for AD. A positive correlation was found between the IL-8 and the TEWL in AD.
Conclusions: The IL-8 concentration can serve as a differentiation marker in AD. An elevated concentration of IL-8 in AD damages the epidermal barrier, as demonstrated by the measurement of TEWL and epidermal hydration.

WSZAWICA GŁOWOWA — CO WIEDZĄ RODZICE?
PEDICULOSIS CAPITIS — WHAT DO PARENTS KNOW ABOUT IT?

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Introduction: Pediculosis capitis is one of the most common ectoparasitic infestations. It usually occurs in kids, preschool and school youth. Therefore it is a constant problem in this group. Recent data demonstrated an increasing resistance to particular pediculicides.
Aim of the study: The aim of the study was to assess knowledge about prevention, diagnosis and treatment of pediculosis capitis among parents of kindergarten children in the Lubelskie Voivodeship.
Materials and methods: 127 parents whose children attend to kindergartens were surveyed. The results were statistically processed.
Results: Majority of respondents (99.2%) heard about pediculosis. 78.8% of parents check the child's scalp at least once a month, whereas 12.6% do not do it at all. Respondents can correctly recognize the symptoms of the disease including: presence of lices, itching of the skin (87.4%), followed by the presence of nits (82.7%) and erythematous papules (11.0%). In case of pediculosis capitis, over half of them will seek help at pharmacies. Majority of respondents know the routes of transmission, however every third respondent does not know the rules of appropriate handling with personal items of the patient with pediculosis. Only 16.5% heard about resistance to pediculicides.
Conclusions: The study showed that the parents' knowledge about pediculosis capitis among children is satisfactory. The problem of recurrence of the disease may result from incorrect use of medications or inadequate handling with personal items of patients. Therefore health education in kindergardens could be an important strategy to prevent infestation.

CHOROBY ALERGICZNE W TRICHOSKOPII
ALLERGIC DISEASES IN TRICHOSCOPY

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Introduction: Trichoscopy is an innovative method of noninvasive skin imaging used in the differential diagnosis of hair and scalp disorders. Studies which provide data on trichoscopy in allergic diseases are limited.
Aim of the study: The aim of our study was to evaluate and compare trichoscopic features of different allergic dermatoses.
Materials and methods: Seven patients were included to the study: 3 patients with allergic eczema, 2 with atopic dermatitis, 1 with contact dermatitis and 1 with drug-induced dermatitis. Digital photographs and trichoscopy of frontal, occipital and temporal areas (with and without immersion; × 20, × 50, × 70) were performed.
Results: Desquamation was present in all patients, however taken under consideration the severity of scaling, there were differences between diseases. The most intense scaling was observed in atopic dermatitis and the least in drug-induced dermatitis. In all patients trichoscopy revealed broad spectrum of blood vessels: comma-like vessels, dotted vessels, hairpin vessels and thin arborizing vessels. Thick arborizing vessels, milky red globules and thick root-like vessels were observed in allergic eczema, elongated hairpin vessels in drug-induced dermatitis and contact dermatitis. Additional features like hemorrhagic dots and yellowish exudate were observed in most cases, excluding the patient with drug-induced dermatitis.
Conclusions: Trichoscopy may be useful in the differential diagnosis of allergic diseases. Coexistance of many types of vessels in trichoscopy seems characteristic for the whole group of allergic

diseases. Although, some types of vessels may indicate precise diagnosis alike the severity of scaling that is high in atopic dermatitis and low in drug induced dermatitis. Studies on more numerous groups of patients are needed.

CZY SOCIAL MEDIA MAJĄ WPŁYW NA TRĄDZIK? BADANIE ANKIETOWE
DOES SOCIAL MEDIA AFFECT ACNE? SURVEY REPORT

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Introduction: Acne vulgaris is a disease associated with dysfunction of the sebaceous glands and the hair follicles, affecting the majority of young people in Poland and often having impact on many aspects of life.
Aim of the study: To examine the attitude of young people's opinions on the picture of acne on social media.
Materials and methods: In 2019 an original anonymous survey was conducted among 101 subjects. They filled 39 questions regarding acne and social media.
Results: In the group 82.2% were females and 17.8% males. Almost 90% of the responders were between 19 and 24. Almost 85% ever had acne and face was most commonly involved (88.8%). 58% of the responders were treated by the dermatologist. 44.6% agreed that acne affects the way they spent free time. Over 30% claimed it had influenced their life choices. 80.2% spent more than an hour daily on social media. More than 25% always covered acne in content they post on social media. Almost 25% think social media made dealing with acne harder in real life. Over 24% changed the treatment based on advice they received on social media. More than 80% of studied persons thought health care professionals should discuss acne more on social media.
Conclusions: Acne is a very common disease. Our survey showed that it affects patients everyday life and has influence on their behavior, especially on social media. In the times of virtual reality health care providers should place emphasis on improving the picture of acne on social media.

ANALIZA EPIDEMIOLOGICZNA WYSTĘPOWANIA I LECZENIA MALFORMACJI NACZYNIOWYCH U DZIECI HOSPITALIZOWANYCH W KLINICE DERMATOLOGII, DERMATOLOGII DZIECIĘCEJ I ONKOLOGICZNEJ UNIWERSYTETU MEDYCZNEGO W ŁODZI
THE EPIDEMIOLOGICAL ANALYSIS OF THE OCCURRENCE AND TREATMENT OF VASCULAR MALFORMATIONS IN CHILDREN AND ADOLESCENTS, HOSPITALIZED IN THE DEPARTMENT OF DERMATOLOGY, PEDIATRIC DERMATOLOGY AND ONCOLOGY, MEDICAL UNIVERSITY IN ŁÓDŹ

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Introduction: A vascular malformation (PWS, port-wine stain), occurs in 3:1000 newborns, usually grow in proportion to the growth of the child and persist throughout life. It can appear on any part of the body, as light pink to purple discolorations. Pulsed dye laser (PDL) is the gold standard for treatment of PWS.
Aim of the study: To present epidemiological analysis of the occurrence of PWS in children and adolescents treated with PDL.
Materials and methods: The group of 138 patients, treated with PDL, were enrolled to the study. Data were collected based on hospital medical records of Department of Dermatology, Pediatric Dermatology and Oncology in Lodz, from 2010 to 2018 and statistically analyzed.
Results: Of 138 patients, females constituted 73.2% of the population. The age of the patients ranged from 0 to 18 years. The most often location of PWS was: face (28%) and lower limb (27%). Lesions were less frequently localized on the upper limb (14%), neck (9%). From 2010 to 2018, 448 procedures of treatment with PDL were performed. The average parameters of laser was dependent on localization of the lesion and was set as follows (the average of: the spot size [mm], the wavelength [nm], the energy [mJ]): face (6.94/0.92/9.47), lower limb (7.60/1.43/7.37), neck (7.19/1.28/8.32), upper limb (7.49/1.33/8.54).
Conclusions: The vast majority of patients presented lesions in more than one location. The parameters of the PDL did not differ between the population of children and adolescents. The growing trend of laser therapy performance was noted from 2010 to 2018.

SESJA PRZYPADKÓW KLINICZNYCH (JĘZYK POLSKI)

DIALIZA ALBUMINOWA W SYSTEMIE MARS W LECZENIU OPORNEGO ŚWIĄDU W PRZEBIEGU CHOLESTAZY — OPIS PRZYPADKU
SUCCESSFUL CLINICAL APPLICATION OF THE MOLECULAR ADSORBENT RECIRCULATING SYSTEM (MARS) WITH INTRACTABLE PRURITUS DUE TO CHOLESTASIS: A CASE REPORT

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Introduction: Pruritus is a common symptom of cholestatic liver diseases which may severely compromise quality of life. Current medical therapies often lack efficacy. The Molecular Adsorbents Recirculating System (MARS) allows removal of pruritogenic substances and represents an interesting therapeutic option.
Case description: Our case report shows a patient with intractable pruritus due to cholestasis successfully treated with the MARS system. The patient had suffered from cholestasis, which had been treated with different medicine with a short-term satisfying effect. The Molecular Adsorbent Recirculating System (MARS) was applied for albumin dialysis at the Department of Hepatology and Gastroenterology in Aarhus University Hospital. After the MARS treatment pruritus completely disappeared. No adverse events were observed. MARS treatment will be repeated when the pruritus recurs.
Conclusions: Despite maximal medical management pruritus often persists and has a detrimental effect on quality of life. MARS dialysis substantially reduces cholestatic pruritus refractory to pharmacological treatment. However, long-term repetitive treatment is necessary to sustain its effectiveness.

PIERWOTNY SKÓRNY CHŁONIAK ROZLANY Z DUŻYCH KOMÓREK B TYPU KOŃCZYNOWEGO — OPIS PRZYPADKU
PRIMARY CUTANEOUS DIFFUSE LARGE B-CELL LYMPHOMA, LEG TYPE — A CASE REPORT

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Introduction: Primary cutaneous diffuse large B-cell lymphoma, leg type (DLBCLLT) is a rare, intermediately aggressive form of primary cutaneous B-cell lymphoma (CBCL) that is characterized by the presence of large round cells on histopathology. Elderly women are more commonly affected. Clinically, it presents as red-brown to bluish nodules or tumors on one or both distal legs.

Case description: A 74-years-old woman was admitted to the Department of Dermatology with a five-month history of erythematous nodules present under the left knee. Dermatological examination revealed numerous tumors, nodules and infiltrates which were sharply demarcated, red-brown and firm under palpation. Laboratory tests revealed an elevated level of C-reactive protein and lactate dehydrogenase. Imaging diagnostics didn't reveal any internal focal lesions. Based on histopathological examination DLBCLLT was diagnosed. The patient was further referred to the Oncology Department.
Conclusions: DLBCLLT is an extremely rare and unique form that may have potentially fatal consequences if undiagnosed. Pathogenesis is still unknown. Treatment depends on the type and severity of the disorder. The prognosis is less favorable than other types of CBCLs, with a 5-year survival rate of 50%.

MIĘSAK KAPOSIEGO CZY NACZYNIAKOMIĘSAK — ROLA DIAGNOSTYKI RÓŻNICOWEJ
KAPOSI SARCOMA OR ANGIOSARCOMA — THE ROLE OF DIFFERENTIAL DIAGNOSIS

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Introduction: Kaposi sarcoma is a generally indolent lymphovascular neoplasm, which pathogenesis is always connected with Kaposi Sarcoma Herpes Virus infection. Four main types of Kaposi sarcoma include: classic, which usually appears on the lower extremity in elderly men, endemic, AIDS related and iatrogenic. Angiosarcoma is a rare malignant vascular neoplasm with poor prognosis, generally affects the head and neck region, may be triggered by radiation, lymphedema or in more than half cases by unknown factors.
Case description: A 93-year-old female patient was referred to the department of dermatology with multiple red and purplish macules, patches and nodules located on the left leg. Oedema and severe pain of the left lower extremity was presented. The first symptoms appeared three months ago. A biopsy was performed but the results were ambiguous — Kaposi sarcoma vs angiosarcoma.
Conclusions: Differential diagnosis leading to Kaposi sarcoma or angiosarcoma should be complex and precise when a disseminated ulcerated extensive nodular lesion is located on lower extremities. Accurate analysis of clinical and histopathological data is necessary to make the right diagnosis. Histological features of these neoplasms are overlapping, therefore when pathology results are doubtful histolopathological examination taking into account immunohistochemistry should be repeated. Even through the classic Kaposi sarcoma is usually associated with favourable prognosis, it is important to note that about 2% has primary aggressive manifestation and high risk of mortality.

HIDRADENOCARCINOMA — RZADKI NOWOTWÓR WYWODZĄCY SIĘ Z GRUCZOŁÓW POTOWYCH — OPIS PRZYPADKU
HIDRADENOCARCINOMA — A RARE CARCINOMA DERIVED FROM SWEAT GLANDS — CASE REPORT

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Introduction: Malignant carcinomas of the eccrine sweat ducts, which are extremely rare, occur in approximately one in every 13,000 cased diagnosed in dermatopathology laboratories. Clinically they are reported as non-symptomatic, slow-growing nodules. These carcinomas occur mainly in the elderly people (50–60 years of age). These carcinomas are mostly localized on head and neck or torso. They are locally aggressive — infiltrate surrounding tissue and metastasize to regional lymph nodes. In minority of cases distant metastases are diagnosed.
Case description: A 68-year-old man was admitted to the department after radical resection of the skin lesion from the torso and lymphadenectomy. Primary tumor was diagnosed as hidradenocarcinoma and lymph node metastases were confirmed. The radical radiotherapy was administered (total dose of 60 Grays). After 3 months local recurrence was diagnosed. Multidisciplinary team referred patient for surgery. After next 1.5 years the distant metastases were detected. Despite the two lines of chemotherapy the patient died after 3 years from the primary diagnosis.
Conclusions: Quick and relevant diagnosis is the basis of treatment all types of sweat glands carcinomas. The patient's life expectancy depends on multiple prognostic factors including size of primary tumour and its mitotic count. Patients should be referred to specialized skin-cancer center to receive optimal multidisciplinary treatment.

ECCRINE POROCARCINOMA — RZADKI NOWOTWÓR WYWODZĄCY SIĘ Z GRUCZOŁÓW POTOWYCH — OPIS PRZYPADKU
ECCRINE POROCARCINOMA — RARE CARCINOMA DERIVED FROM SWEAT GLANDS — CASE REPORT

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Introduction: Eccrine porocarcinoma (EPC) is a rare malignant neoplasia arising from the intraepidermal ductal part of the eccrine sweat glands and as such it originate from one of the four primary adnexal structures of the skin. EPC usually affects people in the sixth and seventh decades of life and represents only 0.005% of all malignant cutaneous tumors. No guidelines of EPC treatment are available therefore therapy is still challenging.
Case description: A 54-year-old male was referred to Department of Soft Tissue/Bone Sarcoma and Melanoma with a history of a skin lesion on his right arm. The lesion was preliminary diagnosed as a porocarcinoma and a radical surgery was performed. Right axillary lymphadenopathy was subsequently detected at follow–up. Wide scar excision and lymphadenectomy were performed. Histopathologic examination reported no cancer cells in the scar and metastases to the axillary lymph nodes. Postoperative radiotherapy (60 Gy/30 fractions) on the axilla was performed. Six months after the second surgery, patient was diagnosed with distant metastases. Metastasectomy with adjuvant chemotherapy was used. Currently no metastatic lesions are observed during the follow-up period of 12 months.
Conclusions: EPC is a rare malignancy, and patients should be referred to specialized skin-cancer centre to optimize multidisciplinary treatment that could relevantly affect patient outcome.

ANALIZA PRZYPADKÓW Z RAKIEM PODSTAWNOKOMÓRKOWYM Z CECHAMI ROGOWACENIA — *BASOSQUAMOUSCELL CARCINOMA*
CASE STUDY WITH BASAL CELL CARCINOMA WITH KERATINIZATION — BASOSQUAMOUSCELL CARCINOMA

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Introduction: Basosquamouscell carcinoma (BSC) is a rare type of skin cancer which is often considered as basal cell carcinoma (BCC) subtype, however it tends to be more aggressive with a higher rate of reoccurrence, metastasis and perineurial invasion. BSC displays histologic and dermoscopic features characteristic for basal cell carcinoma and squamous cell carcinoma (SCC). Although the gold standard of diagnosis for BSC is biopsy followed by histopathological evaluation, minimally invasive diagnostic tools have obtained increased attention.
Case description: A 43-year-old man was referred to Department of Dermatology with an ulceration measuring 5cm located in the left preauricular region with coexisting destruction of left external auditory meatus and auricle. The patient had also complained of severe pain in the lesion area and hearing disorder on the left side. Dermoscopic examination of the lesion revealed arborizing, coiled, dotted and hairpin vessels, white

circles and whitish hyperkeratotic follicles with central yellowish keratinous plugs. On the basis of histopathological examination basosquamous cell carcinoma was diagnosed. The patient was referred to an oncological surgery outpatient clinic in order to qualify for further therapy.
Conclusions: Although BSC is a rare form of skin cancer, it is crucial to distinguish it from BCC because of its higher tendency for recurrence and metastasis. In cases with rapidly growing ulcerations that tend to destroy adjacent tissues and coexisting features of BCC and SCC observed in dermoscopy, the BSC should be considered as a possible diagnosis.

ZAPALENIE SKÓRNO-MIĘŚNIOWE IMITUJĄCE ŁUPIEŻ CZERWONY MIESZKOWY — POSTAĆ WONGA — OPIS PRZYPADKU
DERMATOMYOSITIS IMITATING PITYRIASIS RUBRA PILARIS — THE WONG'S TYPE — A CASE REPORT

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Introduction: Dermatomyositis is a long-term, autoimmunological disorder affecting predominantly muscles and the skin. It occurs more often in women than men. A rare form described by Wong can imitate other diseases such as pityriasis rubra pilaris, dandruff or discoid lupus erythematosus. The vacuolization of the basal layer is the most characteristic and distinguishing histopathological finding differentiating dermatomyositis from other dermatological conditions.
Case description: A 59-year-old woman, with the history of breast cancer treated surgically 20 years ago, was admitted to the Dermatology Department due to skin lesions, weakness of the shoulder and iliac girdle muscle. On examination, in addition to the typical features of dermatomyositis, numerous, small, shiny-red papules and Köbner phenomenon were found. Laboratory tests revealed an increased activity of muscle enzymes and markers for breast and ovarian cancer, the presence of specific anti-TIF gamma antibodies. Histopathological examination of the skin showed hyperkeratotic epidermis with cores within the hair follicles, vacuolar degeneration of the basal layer cells, with perivascular lymphocytic infiltration. Based on overall clinical picture, Wong's dermatomyositis was diagnosed. Systemic treatment with methylprednisolone pulses and photoprotection were initiated. Moreover urgent pelvic CT scan and oncological consultation were recommended. The patient was referred to a Rheumatological Department.
Conclusions: Wong's form of dermatomyositis is extremely rare and maintaining the proper diagnosis remains challenging. It might imitate other conditions clinically and histologically delaying the right diagnosis. Cooccurance of internal malignancies and the Wong's form of DM have not been studied yet but should be warranted.

MANIFESTACJE SKÓRNO-ŚLUZÓWKOWE U PACJENTKI Z ZESPOŁEM BEHÇETA ORAZ TOWARZYSZĄCYM ZESPOŁEM ANTYFOSFOLIPIDOWYM, TOCZNIEM RUMIENIOWATYM UKŁADOWYM I MIASTENIĄ
SKIN AND MUCOSAL MANIFESTATIONS IN A PATIENT WITH BEHÇET'S DISEASE AND CONCOMITANT ANTIPHOSPHOLIPID SYNDROME, SYSTEMIC LUPUS ERYTHEMATOSUS AND MYASTHENIA GRAVIS

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Introduction: Behçet's disease is a rare disorder in Europe characterized by auto inflammation of the blood vessels affecting nearly all parts of the body. However, the first symptoms of the disease are most frequently mucocutaneous findings like recurrent oral and genital aphthae and pustular lesions.
Case description: A 28-year old female patient has been admitted to Hematology and Transplantology Clinic of University Teaching Center in Gdańsk to be qualified to allogenic Hematopoietic Cell Transplantation. From the age of 11–12 the patient has suffered from recurrent, long lasting oral and genital aphthae. That time the patient has also observed non-healing wounds as well as single ulcers. At age of 20 exacerbation of skin lesions has been observed in form of multiple ulcers and papulopustular lesions. In 2016 a positive pathergy test has been performed and in 2018 the patient has been diagnosed with HLA B51 serotype. The final diagnosis of Behçet's disease has been made in 2018. Additionally, over the past 5 years the patient has been diagnosed with antiphospholipid syndrome and systemic lupus erythematosus. The patient has been treated with a wide range of recommended systemic immunosuppressive treatment without satisfying results. Currently the patient receives mycophenolate mofetil, tacrolimus, deflazacort and tocilizumab.
Conclusions: Mucocutaneous findings like recurrent orogenital aphthae, especially at a young age, together with papulopustular lesions can indicate an ongoing autoimmunological process and can anticipate future full-blown Behçet's disease. Skin and mucosa findings mentioned above can be observed even 10 years ahead of the fully developed disease.

ROZLEGŁA KALCYNOZA SKÓRY W PRZEBIEGU MIESZANEJ CHOROBY TKANKI ŁĄCZNEJ
EXTENSIVE CALCINOSIS CUTIS IN MIXED CONNECTIVE TISSUE DISEASE

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Introduction: Calcinosis cutis (CC) is a rare disease characterized by pathological subcutaneous deposition of insoluble forms of calcium. It may result from damage to skin and subcutaneous adipose tissue, abnormal calcium or phosphate metabolism, or without any apparent reason. Four main types are distinguished — dystrophic, metastatic, idiopathic and iatrogenic. The most common dystrophic variant usually occurs in collagen-vascular diseases.
Case description: We present the case of a 49-year-old woman diagnosed with mixed connective tissue disease (MCTD), who was referred to a surgical ward due to large bilateral calcifications of tights and gluteal region. The patient was treated for MCTD from her early thirties, presenting periodical dominant SLE and vasculitis. The first hard nodules formed under the chin four years ago and later they started to appear on the buttocks and tights. The calcified lesions were enlarging over time and opening on the skin surface with appearance of the whitish discharge. Eventually affecting joint surfaces, lesions caused difficulties in movement. Largest calcifications only from both buttocks were removed in the surgery department and no complications were observed.
Conclusions: Only 7 cases of CC occurring in MCTD were previously described and none of them experienced as extensive CC as presented by our patient. Pharmacological or surgical treatment is possible, depending on the individual features of the patients. In comparison to our case, the successful therapy was not observed among other patients, yet in most of them the treatment was even not applied.

ZESPÓŁ ROWELLA — OPIS PRZYPADKU
ROWELL'S SYNDROME — A CASE REPORT

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Introduction: Rowell's Syndrome (RS) is a rare entity characterized by the association of lupus erythematosus (discoid, systemic or subacute) with erythema multiforme-like lesions and immunological findings including positive speckled antinuclear antibody (ANA) and positive anti-Ro (SS-A) and/or anti-La (SS-B) antibodies. Middle-aged women are more commonly affected. In 2000, Zeitouni et al. suggested diagnostic criteria for Rowell's Syndrome. The diagnosis requires three major and at least one minor criteria. Rowell's Syndrome responds to steroids, azathioprine, antimalarials, dapsone and cyclosporine.

Case description: We report the case of a 68-year-old female presented with diffuse, erythrodermic, targetoid lesions with underlying erythema primarily located on the trunk, upper limbs, face, neck and scalp. In the same month the patient was diagnosed with systemic lupus erythematosus and Sjögren's syndrome and was treated with cyclosporin A (2.2 mg/kg/day), hydroxychloroquine (200 mg/day), prednisone (0.44 mg/kg/day) and risendros (due to osteoporosis). Laboratory studies revealed a positive anti-nuclear antibody in speckled pattern, anti-SS-A and anti-SS-B. Based on her medical history, clinical manifestation, laboratory, histopathological and immunological findings, she fulfilled the diagnostic criteria for Rowell's syndrome as described by Zeitouni et al. and the diagnosis of drug-induced Rowell's Syndrome was established. Significant improvement within two weeks was noted with the use of intramuscular methylprednisolone and oral prednisone. The lesions had resolved with scaling and postinflammatory hyperpigmentation.
Conclusions: Rowell's Syndrome occurs rarely, thus it can be easily misdiagnosed. It should be suspected in any patient that shows EM-like lesions in association with LE. A detailed drug history can be useful in detecting unexpected drug-related pathologies.

OPIS PRZYPADKU PACJENTKI Z *LIVEDOID VASCULOPATHY* — TRUDNOŚCI DIAGNOSTYCZNE I TERAPEUTYCZNE
LIVEDOID VASCULOPATHY — DIAGNOSTIC AND THERAPEUTIC DIFFICULTIES — CASE REPORT

Maja Żołnierek, Wiktoria Kotusiewicz

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Introduction: Livedoid vasculopathy is a rare, chronic, thrombotic disease of small vessels. It mostly affects women at age from 15 to 50. Symptoms are tend to worsen in the spring and summer months with the episodes of intravascular coagulation. Clinical features include livedo racemosa and painful ulcers, which evolve into the atrophie blanche. Skin lesions tend to form at distal lower extremities. Etiopathology remains unclear and complex. Many patients are identified with coagulation disorders. Treatment include antifibrinolytic agents, antiplatelets agents, glucocorticoids and shows different effectiveness.
Case description: A 30-year-old woman with a 12-year-history of livedo racemosa on distal lower extremities is under the guidance of Dermatology Department. In history, exacerbations occurring in summer months as painful, cyanotic macules and papules with a tendency to disintegration and ulceration evolving into atrophic scars. In the differential diagnosis livedoid vasculopathy and other conditions with similar clinical appearance were considered. They have been excluded, based on histopathology, direct immunofluorescence and absence of antibodies: ANCA, ANA, antiphospholipid, cryoglobulines. In further diagnostic, mutation in prothrombin gene G20210A was found. Patient was treated with antiplatelet agents, anticoagulant agents and systemic glucocorticoids. Treatment was modified due to inefficiency, lack of long-time response or side effects. Lately, mycophenolate mofetil at a dose of 2mg/day was added. Local improvement was obtained with ulceration healing.
Conclusions: Due to rare prevalence and clinical appearance similar to many skin diseases, livedoid vasculopathy cause diagnostic and therapeutic difficulties. Unclear diagnosis, disorders at many levels in coagulation cascade entail unsatisfying therapeutic effects and searching for causes of livedo racemosa.

ZMIANY PAZNOKCIOWE W PRZEBIEGU CHORÓB OGÓLNOUSTROJOWYCH — PREZENTACJA PRZYPADKÓW
NAIL LESIONS IN THE COURSE OF SYSTEMIC DISEASES — CASE SERIES

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Introduction: Nail abnormalities include a wide spectrum of changes that may be either unspecific or typical for specific dermatological or systemic diseases, single-organ pathologies or genodermatoses. Some nail defects develop as a consequence of chronic diseases (i.e. hypoalbuminemia) or drugs intake.Nail alternations in the course of systemic diseases may affect any part of the nail apparatus (the nail matrix, the nail bed, the nail plate, periungual tissues as well as blood vessels) and may manifest as dyschromias, periungual tissue alternations, vascular changes, textural dystrophies, contour and growth-rate abnormalities.
Case description: We report a series of patients consulted or diagnosed at Department of Dermatology, Venereology and Allergology, Medical University of Gdańsk with selected nail abnormalities including onychomadesis, Koenen's tumors, Beau's lines, Muehrcke's lines, and drug-induced melanonychia.
Conclusions: Assessment of the nails and periungual tissues should not be discarded during clinical patient assessment as it may provide important diagnostic clues and sometimes serve as a key to a final diagnosis.

RUMIEŃ GUZOWATY W PRZEBIEGU CHOROBY KOCIEGO PAZURA: SERIA DWÓCH PRZYPADKÓW KLINICZNYCH
ERYTHEMA NODOSUM IN THE COURSE OF THE CAT SCRATCH DISEASE: 2 CASE-SERIES STUDY

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Introduction: Erythema nodosum (EN) is made of numerous nodular inflammatory lesions in the subcutaneous tissue and it most often occurs on the lower extremities. The cause of erythema nodosum is unknown, but the appearance of EN may be associated with infections.
Case description: In October 2019, a seven-year-old girl was admitted to the Department of Children's Infectious Diseases in Warsaw, due to pyrexia and warmth erythema on anterior surface of the lower extremities and the forearms. A cat scratched the patient a few weeks before. In addition, a reddish papule on the fifth finger of right hand and enlarged axillary lymph nodes were found. The serological testing confirmed Bartonella henselae infection, which was treated with azithromycin. In the same month, another seven-year-old girl was admitted to the Department with similar symptoms. Laboratory tests also confirmed B. henselae infection. The patient was treated accordingly.
Conclusions: Erythema nodosum is disease, which may be caused by multiple infectious agents, including Bartonella henselae.

ZIARNINIAK BASENOWY — OPIS PRZYPADKU
FISH TANK GRANULOMA — A CASE REPORT

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Introduction: Fish tank granuloma is an uncommon disease caused by infection of Mycobacterium marinum, a nontuberculous mycobacteria that is often acquired via contact with contaminated salt or fresh water. Clinically, cutaneous M. marinum infection manifests with nodules or pustules that may progress to ulcers, abscesses or warty plaques. It may spread proximally along the lymphatic vessels in a sporotrichoid pattern. Although the infection typically occurs on the dominant hand, any extremity might be affected.
Case description: A 52-year-old female patient with Hashimoto's disease was admitted to the Department of Dermatology with 5 years history of hyperkeratotic skin lesions on the dorsal surface and third finger of the right hand. The patient had cleaned an aquarium before the skin lesions appeared. Tuberculin test was performed with a positive result, but the tissue culture was negative. Histological examination of a skin fragment revealed acanthotic epidermal growth, abundant infiltration of lymphocytes and neutrophils with formation of a single granuloma in the dermis. Diagnosis of swimming pool granuloma was established based on interview and histological findings.

Conclusions: Mycobacterium marinum is the cause of chronic systemic infections in fish and an occasional cause of granulomatous skin lesions in humans. Fish tank exposure is the source of most cases of cutaneous M. marinum infections as it was also in the presented case. Cutaneous lesions are generally nonspecific and are often initially misdiagnosed. Thus early diagnosis of the infection and appropriate antimicrobial therapy with surgical debridement are the mainstays of successful treatment.

ACRODERMATITIS CONTINUA HALLOPEAU — OPIS PRZYPADKU
ACRODERMATITIS CONTINUA OF HALLOPEAU — A CASE REPORT

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Introduction: Acrodermatitis continua of Hallopeau (ACH) is a sterile pustular eruption, considered a localized form of pustular psoriasis. The condition presents with tender pustules and underlying erythema on the tips of the digits. It's often triggered by localized trauma or infection of the distal phalanx. Other etiologies are infectious, neural, inflammatory and genetic causes such as IL36RN gene mutations or CARD14 and AP1S3. Pustulation of the nail bed and matrix can result in onychodystrophy, anonychia and osteolysis of the distal phalanges. Because of the rarity of ACH, there have been no randomized controlled studies to evaluate therapies.
Case description: A 65-year-old patient, with negative family history of skin diseases, was admitted to the Dermatology Department due to the 10 years history of skin lesions on the palms and soles. Initially the disease was limited to the nails, after several years multiple pustules have appeared. Lesions have exacerbated after localized trauma. Dermatological examination revealed onychodystrophy involving all the fingernails, multiple confluent pustules and inflammation of the skin of the distal phalanges. Laboratory tests showed increased CRP level and Candida superinfection of the nails. Based on the histopathological examination and clinical picture ACH was diagnosed. Systemic treatment with acitretin in combination with topical agents was introduced.
Conclusions: Due to the rarity of ACH, in numerous cases establishing an accurate diagnosis remains challenging. Over time, ACH becomes chronic and progressive and have a tremendously negative impact on quality of patients' life. Due to the lack of treatment guidelines concerning ACH, clinical management strategy should be always personalized.

PRZYPADEK PĘCHERZYCY LIŚCIASTEJ U NASTOLATKA
A CASE OF PEMPHIGUS FOLIACEUS IN A TEENAGER

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Introduction: Pemphigus foliaceus (PF) is a rare, chronic autoimmune blistering skin disease characterized by subcorneal, acantholytic blisters and when ruptured, erosion-exfoliative lesions. IgG antibodies directed against epidermal desmoglein 1 destroy the connections between the cells of the squamous layer, leading to the formation of blisters under the stratum corneum of the epidermis. PF mainly occurs in adults in age of 40–60.
Case description: A 18-year-old patient was admitted to the Department of Dermatology, Pediatric Dermatology and Oncology, Medical University of Lodz due to blemish skin lesions with a flaccid cover located on face, chest, back and upper limbs. The first skin taints appeared in May 2018 and therefore exacerbated on account of infection of upper respiratory tract. Patient medical history included IgA vasculitis in 2010 treated with high-dose of steroids. Steroidotherapy was complicated by arterial hypertension. A skin biopsy from lesions was performed for histopathological examination and for direct immunofluorescence staining. Additionally, indirect immunofluorescence test revealed antibodies against desmoglein 1. Both characteristic clinical and immunologic features confirmed the diagnosis of pemphigus foliaceus. Systemic and topical steroidotherapy was initiated. Due to a lack of response to treatment Azathioprine was added as an adjuvant. Due to little improvement in skin lesions, treatment with intravenous infusions of immunoglobulins was added to the regimen without satisfactory improvement. The patient is currently awaiting for rituximab treatment.
Conclusions: Pemphigus foliaceus is a disease that occurs almost exclusively in adults, that is why this case is extremely unique.

SKÓRNE MANIFESTACJE MEN 2 — PODOBNY OBRAZ KLINICZNY, ODMIENNE ROZPOZNANIA
SKIN MANIFESTATION OF MEN 2 — THE SIMILAR CLINICAL PICTURE, BUT DIFFERENT DIAGNOSES

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Introduction: Multiple Endocrine Neoplasia 2 (MEN2) is disorder of endocrine glands associated with the mutation of gene RET, which most often manifest as medullary thyroid cancer. Skin manifestations, such as lichen amyloidosis, notalgia paraesthetica, macular amyloidosis in MEN2A or neurofibromas in MEN2B, are rarer findings but helpful in diagnostics. For lichen amyloidosis (LA) characteristic are multiple pruritic hyperpigmented macules or nodules, which usually localize on shins. Notalgia paraesthetica (NP) is a chronic neuropathy with pruritis and presence of hyperpigmented patches located unilaterally on the upper back.
Case description: The mother and daughter with MEN2A syndrome are regularly followed up at Dermatology Outpatient Clinic. A 65-year-old patient has been observed from 2012 due to multiple itchy hyperpigmented lesions on her back, histopathologically confirmed as lichen amyloidosis. LA was dermatologically controlled and cured with loratadine and clobetasol during exacerbations. Since 3 years she has been suffering from alopecia arreata. In 2015 a 38-yo daughter was directed to Clinic due to itchy nodular and macular lesions on her nape. The examination showed also similar looking lesions on her back, therefore the biopsy was performed and showed NP.
Conclusions: There isn't one characteristic skin lesion for MEN2A. In the same family different skin manifestation of disorder were present, therefore skin changes are probably environmental-related. Skin lesions with the appearance of LA can be differentiated from NP. Despite the different histopathological picture, eruptions in MEN2A usually localize on the back, which can be helpful indicator of MEN2A.

OLBRZYMIA *RHINOPHYMA* U PACJENTA W TRAKCIE DŁUGOTRWAŁEJ TERAPII IMMUNOSUPRESYJNEJ: OPIS PRZYPADKU
GIANT RHINOPHYMA AFFECTING A PATIENT ON LONG-TERM IMMUNOSUPPRESSIVE TREATMENT: A CASE REPORT

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Introduction: Rhinophyma is the most advanced stage of rosacea. It is characterized by permanent inflammatory stimulation usually followed by sebaceous glands proliferation, fibrosis and gradual enlargement of nasal tissues, which may cause significant functional and cosmetic impairment. In most severe cases, nasal congestion, sleep apnea or difficulty in eating may occur. Presence of occult basal cell carcinomas in removed rhinomatous tissues in the range of 3% to 10% of cases has been reported.
Case description: We present the case of a 71-year-old man remaining on long-term immunosuppressive treatment after heart (1998) and kidney transplant (2006). In 2013, the patient was diagnosed with rosacea. The use of tetracycline was initially effective, but over time dynamic growth of sebaceous glands occurred, which resulted in giant nasal hypertrophy and significant impairment of the patient's functioning. Surgical removal of tuberous lesions was performed. Due to numerous burdens and comorbidities, surgery was performed with local anesthesia

and careful anesthetic supervision, after meticulous preparation of the patient by a multidisciplinary team. The operation involved tangential partial thickness skin excision and leaving the wound for secondary healing. A satisfying cosmetic effect was obtained.
Conclusions: The course of rosacea may be influenced by numerous internal loads such as peptic ulcer disease, hypertension, cardiological burden, chronic transplanted kidney nephropathy, nicotinism, and the treatment of those. The use of cyclosporine in the immunosuppressive regimen could potentially exacerbate the degree of fibrosis and sebaceous gland hypertrophy affecting the patient in question. Preparation for surgical treatment of the most severe cases requires multidisciplinary approach.

SESJA PRAC POGLĄDOWYCH (JĘZYK POLSKI)

CHOROBY WSPÓŁISTNIEJĄCE W PEMFIGOIDZIE
COMORBIDITIES OF PEMFIGOID

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The aim of the study is to investigate the association between bullous pemphigoid,melanoma, neurological diseases, other immunobullous disease.The association of bullous pemphigoid with melanoma remains controversial andpoorly understood. Recent studies on the bullous pemphigoid antigen, BP180, in transformed melanoma cells, suggest underlying mechanism for cases of melanoma-associated bullous pemphigoid. Bullous pemphigoid is associated with autoantibodies of the BP180 and BP230 antigens. Interestingly, a recent study reported expression of the terminal domain of BP180 in malignant melanoma; this is absent in benign melanocytic tumors. There is asignificantly higher level of anti-BP230 antibodies in the serum of melanomapatients compared with healthy controls.Moreover, human leukocyte antigen (HLA) polymorphisms may predisposepatients to both bullous pemphigoid and melanoma. HLA-DQB1 has been noted tohave a significantly higher frequency in Caucasian patients with melanoma. A similar relationship with bullous pemphigoid has been noted in neurologic disease. Up to 50% of patients with bullous pemphigoid have a neurologic disease and a strong association between two conditions has been noted. BP180, the target autoimmunity in bullous pemphigoid, is expressed widely in the brain and it hasbeen proposed that self-immunization secondary to central nervous system disease accounts for the bullous pemphigoid — neurologic disease association. Significantly elevated levels of nonskin binding antibodies targeting neuronal BP180, has been found in patients with Parkinson's disease.

ZMIANY SKÓRNE ZWIĄZANE Z OTYŁOŚCIĄ
SKIN MANIFESTATIONS OF OBESITY

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Nowadays obesity is a very common worldwide problem spreading at an alarming rate. Body Mass Index (BMI) is used to define obesity — which starts at BMI 30 kg/m^2. It is not only an aesthetic problem but above all, it is a health hazard. It involves many organs and systems in the human body, including the skin. Obesity leads to damaging changes in skin physiology concerning skin barrier, collagen structure and wound healing. Moreover, it affects sebaceous and sweat glands. Increased production of sebum and sweat significantlyaugments the incidence of acne and intertrigo. This increases the risk ofbacterial and fungal infections and can result in unpleasant skin odour. Also, obesity causes serious lymphatic and circulatory changes, manifesting as varicose eczema, ulceration or lymphedema. Obesity presents with a specific range of symptoms, such as palmoplantar keratodermas, acanthosis nigricans, striae distensae, cellulite, keratosis pilaris and acrochordons. Hirsutism and fat redistribution can be also observed. Furthermore, the overactive immune response induced by obesity leads tovarious inflammatory diseases. On top of that, altered metabolism is tightly connected to the excess of adipose tissue. Insulin resistance and compensatory hyperinsulinemia may exacerbate cutaneous disorders linked to obesity, as well as symptoms of rare skin diseases. In our work, we would like to focus on presenting the skin manifestations of obesity, which can provide a better understanding of the pathogenesis of obesity and the great impact it has on different structures of the human organism.

ZABURZENIA METABOLICZNE U PACJENTÓW Z ŁYSIENIEM
METABOLIC ABNORMALITIES IN PATIENTS WITH HAIR LOSS

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Hair loss may be an isolated problem of hair follicles or accompany otherdiseases and conditions. The prevalence of metabolic disorders is rapidlyincreasing worldwide. The association between metabolic disorders and skindiseases, including different types of alopecia, has recently attracted growingattention. This review aims to provide an insight into the frequency ofmetabolic disorders in patients with hair loss and possible mechanismslinking metabolic abnormalities and disruption of follicle cycling. Metabolicdisorders have been found in androgenetic alopecia (AGA), alopecia areata (AA), lichen planopilaris (LPP) and frontal fibrosing alopecia (FFA). Metabolicsyndrome was reported in 21–60% patients with AGA and in 37% patientswith AA, hypertension in patients with AGA and FFA (in 34–64% and 47–50% respectively), an increased level of androgens in female AGA, AA and LPP (in 39%, 43% and 32% respectively), hyperinsulinemia in 61% patients with AA, insulin resistance in 32–60% patients with male AGA, dyslipidemia in 17–47% patients suffering from FFA and in 32–64% patients with AGA and PCOS in 3–16% patients suffering from AGA. Stimulation of androgen receptors in hairfollicles, PPAR-y deficiency and deregulated lipid metabolism, maintenance ofa chronic inflammation by elevated adipokines levels are considered to play arole in hair loss pathogenesis.

ŁYSIENIE SPOWODOWANE CHEMIOTERAPIĄ
CHEMOTHERAPY-INDUCED ALOPECIA

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Chemotherapy-Induced Alopecia (CIA) is one of main side effects of anti-cancer treatment, along with bone marrow suppression and gastrointestinal disorders. For many patients CIA is the symptom they fear most. Development of CIA depends on chemotherapy regimen, dose and schedule. It may occur in various clinical patterns but typically presents as a diffuse, nonscaring, reversible alopecia. Unfortunately, CIA occurs quite often, affecting up to 65% of patients receiving anti-cancer treatment. Hair loss has a negative impact not only on their mood, but also self-esteem and sexuality, which can contribute to the development of other diseases, such as depression. A thorough knowledge of the pathomechanism of hair loss may facilitate the invention of new methods of CIA prevention, which is crucial assome oncological patients consider declining chemotherapy due to fear of CIA. Currently the most effective and safe method of the CIA prevention is scalp cooling. Indications for its use should be considered in terms of the primary disease type, chemo-

therapy regimen and patient characteristics. There are also experimental attempts to develop pharmacological agents, acting selectively on hair follicles. This selectivity would allow to preserve systemic effects of chemotherapeutics in anti-cancer treatment. To date, the AS101 immunomodulator and minoxidil have been reported as effective in reducing baldness in combination with chemotherapy. However, these are not the only agents studied clinically — thanks to advanced molecular methods, more and more therapeutic options appear.

UTRATA WŁOSÓW JAKO DZIAŁANIE NIEPOŻĄDANE FARMAKOTERAPII
DRUG-INDUCED HAIR LOSS

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Alopecia known as hair loss can be triggered by the deficiency of diverse elements and molecules including zinc, iron, proteins but also general anaesthesia, postpartum period, hormonal disturbances and autoimmune processes. One of the less known cause is pharmacotherapy with medications commonly used by doctors of different specialties. There are two types of drug-induced alopecia: anagen and telogen effluvium. Anagen effluvium is mainly caused by anti-cancer chemotherapy agents. The aim of this review is to focus on the second, most common type — telogen effluvium and briefly present the group of drugs of the most probable association with hair loss. Based on the case reports, original articles and reviews from the last 5 years the results of the search concerning the most important drugs of a possible influence on telogen effluvium presents as follows: anticoagulants (dabigatran, rivaroxaban, warfarin, low molecular weight heparin), anticonvulsants (valproic acid), antidepressants (bupropion, fluoxetine, fluvoxamine, citalopram, escitalopram, sertraline, paroxetine, duloxetine, venlafaxine, desvenlafaxine), antifungals (fluconazole, voriconazole, posaconazole), retinoids (isotretinoin), monoclonal antibodies (denosumab, adalimumab), immunomodulators (leflunomide), beta-adrenergic blockers (timolol, propranolol), alkaloids (colchicine). The aim of our article is to focus attention to the fact that hair loss may be caused by administration of medications used in the treatment of frequent medical disorders.

ŁYSIENIE PLACKOWATE — DIAGNOSTYKA RÓŻNICOWA
ALOPECIA AREATA — DIFFERENTIAL DIAGNOSIS

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Alopecia areata is common cause of non scaring hair loss. This disease affects patients of each ages and both genders, especially young under 30. The pathophysiology of alopecia areata is still not clearly described. It seems that autoimmune process is responsible for this disease. Genetics and environmental factors are also influential. Alopecia areata often coexist with severe autoimmune disease such as vitiligo, psoriasis, lupus erythromatosus, rheumatoid arthritis and thyroid diseases. Various treatment methods are available including corticosteroids, minoxidil, cyclosporin and phototherapy (PUVA, narrowband UVB). Alopecia areata can be present in many forms ranging from local patches to diffuse hair loss and in some cases may occur on the eyebrows, eyelashes and other areas of the body. Differential diagnosis depends on clinical form of the disease. It can be differentiated from trichotillomania, tinea capitis, telogen effluvium, anagen effluvium and female/male androgenetic alopecia. This review focus on differential diagnosis of alopecia areata based on macroscopic presentation, dermoscopy and histopathology. Dermoscopy, which is non invasive and fast method is helpful for evaluation, but in some cases histopathology may be required.

ZASTOSOWANIE INHIBITORÓW JAK W LECZENIU BIELACTWA
APPLIANCE OF JAK INHIBITORS IN THE TREATMENT OF VITILIGO

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Vitiligo is a common acquired depigmenting disorder characterized by thepresence of white macules and patches due to the loss of melanocytes. The often visible, disfiguring lesions of vitiligo can be stigmatized by society, making the disease a source of psychological stress that can considerably affect patient's quality of life. Recently, JAK inhibitors have been explored as a promising novel treatment option in vitiligo. JAK/STAT pathway is an attractive therapeutic target, because IFN-γ–dependent cytokines produced through this pathway have been implicated in the pathogenesis of disease.
Our objective was to summarize and critically analyze current data on usefulness of the JAK inhibitors for treatment of vitiligo and review published case reports, case series and meta-analyses. We have included publications from January 2015 until December 2019. A systematic search of 4 medical databases: PubMed, Embase, Scopus and Web of Science using the following terms: vitiligo, JAK inhibitor, JAK/STAT inhibitors was performed.
The review of the literature showed that JAK inhibitors have afavorable safety profile, effectively reduce number of lesions and may offer avaluable new treatment for vitiligo. Although more studies are required to confirm efficacy, establish safety, and investigate durability of repigmentation.

INHIBITORY TYK2 — NOWA POTENCJALNA OPCJA TERAPII W DERMATOLOGII
TYK2 INHIBITORS — A NOVEL POTENTIAL THERAPEUTIC OPTION IN DERMATOLOGY

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Modern dermatotherapy is dominated by the development of various biological drugs. A novel approach in pharmacology isinhibiting intracellular signaling pathways with small molecules. Tyrosine kinase 2 (TYK2) belongs to JAK family protein tyrosinekinase activated by various cytokines. TYK2 plays a crucial role in transducing signals downstream of various cytokine receptors by activation of the transcription factors STATs. These cytokinereceptors are involved in proinflammatory responses associated with immunological diseases. On this account they became anobject of interest as aim of drugs. JAK inhibitors are tested bothin oral and topical formulations, so they could became widely used in dermatotherapy. They are under clinical investigation for inflammatory skin disease, specifically in phase 3 trials for psoriasis or atopic dermatitis. The Janus kinase (JAK) inhibitor, tofacitinib, has been shown to be effective in treating the noncicatricial alopecia, alopecia areata and is also tested in lichen planus therapy. Topical tofacitinib offers the promise of targetedtherapy of refractory vitiligo. The other — baricitinib — was shown to improve the percentage of the Psoriasis Area and Severity Index score of patients with psoriasis. Furthermore, it has been used off-label in advanced stage of mucous membrane pemphigoid where the progression of end-stage appeared to have stopped. All mentioned aspects prove that this group of drugs have high potential in various dermatological conditions and probably could be used for therapy on a wide scale.

GALEKTYNY — NOWA GRUPA BIAŁEK. POTENCJALNA ROLA W CHOROBACH DERMATOLOGICZNYCH
GALECTINS — A NOVEL GROUP OF PROTEINS. POTENTIAL ROLE IN DERMATOLOGICAL DISEASES

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Galectins are a class of proteins that bind to β-galactoside carbohydrates. Based on the diverse structure of carbohydrate-recognition domains, these molecules are divided into 16 groups. Galectins 1, 3, 7 and 9 are localized mostly in both skin and immune cells and their impaired serum concentrations have been reported to play a significant role in dermatological diseases. Decreased level of galectin-1 and increased level of galectin-3 was found in systemic sclerosis (SSc) patients with vasculopathy. Moreover, galectin-3 has been proposed as a marker of all-cause mortality in SSc. On the contrary, decreased expression of galectin-3 was observed in psoriatic lesions which correlates positively with the severity of skin symptoms. Expression of galectin-7 is enhanced in Stevens Johnson syndrome, toxic epidermal necrolysis, atopic dermatitis, exacerbated acne vulgaris and other conditions associated with epidermal barrier dysfunction. Furthermore, low concentration of galectin-7 was found in serum and lesional epidermis in patients with SSc. Galectin-9 is increased in autoimmune skin disorders including SSc, dermatomyositis and systemic lupus erythematosus which corresponds with severe internal organ involvement. This review summarizes current knowledge of impaired levels of galectins in dermatological diseases in association with clinical findings and presents potential usefulness of this novel group of molecules in predicting disease severity, progression and response to the treatment.

BIOMARKERY AKTYWNOŚCI CHOROBY W TWARDZINIE UKŁADOWEJ I TWARDZINIE OGRANICZONEJ
BIOMARKERS OF DISEASES ACTIVITY IN MORPHEA AND SYSTEMIC SCLEROSIS

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Systemic sclerosis (SSc) is an autoimmune disease characterized by vasculopathy and both cutaneous and organ fibrosis of diverse intensity. Localized scleroderma (morphea) is a chronic connective tissue disease of unknown etiology in which fibrosis is confined to the skin and the underlying tissues. The aim of the review is to classify molecules, which may serve as SSc biomarkers for specific clinical manifestations and morphea indicators of the severity of skin fibrosis. In patients with lung fibrosis chemokine ligands 2, 4, 18 (CCL2, CXCL4, CCL18) levels are elevated while in patients with skin fibrosis serum soluble tumor necrosis factor receptors (srTNF), B-cell activating factor (BAFF), interleukins 1, 6 (IL-1,6) are increased. Adiponectin concentration is inversely correlated with intensity of cutaneous fibrosis. In patients with heart involvement and pulmonary arterial hypertension increased serum levels of vascular endothelial growth factor (VEGF) and brain natriuretic peptide (BNP) were indicated. Elevated calprotectin level was found in individuals with gastrointestinal involvement. Increased level of serum E-selectin, intercellular/vascular call adhesion molecule 1 (ICAM-1, VCAM-1) and chemerin are associated with renal involvement. Higher compared to healthy individuals serum concentrations of chemokine ligand 8 (CCL8), tumor necrosis factor alpha (TNF-α), interferon-γ and inducible protein-10 (IP-10) correlate with the exacerbation of skin fibrosis in morphea. The delay in the diagnosis and treatment of SSc and morphea may be the cause of uncontrolled progression of the disease and its irreversible complications, thus identification of possible indicators of skin and organ involvement to prevent their damage is of a great clinical importance.

ROLA PRZECIWCIAŁ PRZECIWJĄDROWYCH O TYPIE *MULTIPLE NUCLEAR DOTS* W CHOROBACH DERMATOLOGICZNYCH
THE ROLE OF MULTIPLE ANTI-NUCLEAR DOTS AUTOANTIBODIES IN DERMATOLOGICAL DISORDERS

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Antinuclear antibodies, which display on immunofluorescence as multiple nuclear dots (anti-MND) on HEp2 cells are rarely detected in subjects without primary biliary cirrhosis (PBC). Theanti-MND pattern is described as a variable number of dots (5–20) which are different from anticentromere antibodies and with negative mitosis. The main targets are Sp100 nuclear antigen and promyelocytic leukemia protein (PML). However, anti-MNDs can be present in multiple conditions and should not be interpreted only as a marker antibody for PBC. The association between some anti-MNDs and dermatologicaldisorders was found. In a large cohort of patients with dermatological disorders anti-MNDs were found in 0.8% subjects. Anti-MNDs were found in 10% of patients with systemic lupus erythematosus and less often in subjects with systemic sclerosis and Sjögren's syndrome, Raynaud's phenomenon, dermatomyositis.
Titers of anti-MNDs vary over the years, do not correlate with thedisease activity or with the cutaneous involvement.
Currently, there is no recommendation for anti-MNDs screeningin subjects with dermatological disorders. However, in theabsence of PBC, a positive result of anti-MNDs should alert physicians about the potential autoimmune systemic diseases. The clinical significance of these rare anti-nuclear antibodies is unclear and needs further studies.

NIEPRAWIDŁOWOŚCI IMMUNOLOGICZNE W PRZEBIEGU LISZAJA PŁASKIEGO
IMMUNOLOGICAL ABNORMALITIES IN THE COURSE OF LICHEN PLANUS

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Lichen planus (LP) is a disease associated with the occurrence of characteristic papular pruritic lesions. The etiology of lichen planus is unknown. In the Polish population, lichen planus occurs in about 1% of the population.
One of the immunological abnormality is elevated number of CD4+ and CD8+ cells responsible for TNF alpha synthesis which leads to initiation and progression of lichen planus. Early LP is associated with high number of macrophages, T cells, and dendritic cells (DC), while advanced LP with high number of T reg cells. Characteristic is also dermal inflitrate of plasmacytoid DC, myeloid DC1 and upregulation of TLR7,8,9. Apart from that, imbalance between Th1 and Th2 is observed. Nowadays, the most significant markers of lichen planus are cytokines. Numerous publications showed changes in serum level of TGF-beta-1, IL-12, IL-4, IL-10, IL-6, IL-8,GM-CSF, IL-1-beta. Increased level of IL-17 predicts disease relapse. Decreased IL-17 in the combination with reduced IL-21 and IL-22 is considered a remission marker. Lichen planus, due to chronic inflammation may affect keratinocytes and transform them into squamous cell carcinoma (SCC). A promising risk marker of keratinocyte transformation is CD133.
There are many characteristic markers of lichen planus. Some cytokines can be considered prognostic for the disease progression and indicate the response to treatment. Analysis of the immune markers can help to define disease stage and lichen planus subtype, but histopathology is a gold standard in LP recognition and activity assessment.

POSTĘPY W REGENERACJI SKÓRY ZA POMOCĄ INŻYNIERII TKANKOWEJ: BIOPRINTING SKÓRY W 3D
ADVANCES IN SKIN REGENERATION USING TISSUE ENGINEERING: 3D SKIN BIOPRINTING

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Skin is a complex organ that provides protection against external agents and plays an essential role in the maintenance of the body homeostasis. After any damage the skin structure and functions must be re-established.
The technology of bioprinting involves computer-controlled deposition of cells and scaffolds into a 3D construction. This method enables to create a skin substitute that can more faithfully replicate native tissue.

Bioprinted skin substitutes or equivalents containing dermal and epidermal components offer a promising approach in skin bioengineering. Bioprinting is being applied to address the need for skin tissues suitable for transplantation. The main use is treatment of superficial wounds and injuries, especially severe burns or diabetic lesions.
Potential dermatological applications include 3D skin models to test novel biological treatments for conditions such as psoriasis, atopic dermatitis and vitiligo, as well as investigating pathophysiological mechanisms of skin disease.
The currently available skin substitutes present several limitations that include poor tissue integration, due to inappropriate vascularization, deficient adhesion to the wound bed, scarring at the graft margins.
The technology of 3D bioprinting emerging a novel strategy to generate multi-layered vascularized human skin grafts that can potentially overcome the limitations of graft survival observed in current avascular skin substitutes.
The combined effort of various gene editing tools, material science engineering and interdisciplinary science holds immense potential in revolutionizing the current picture in regenerative medicine. It may further open gates for newer treatments that may lead to painless, faster and scarless healing of wounds.

OSPA PRAWDZIWA — WIDMO PRZESZŁOŚCI CZY WCIĄŻ AKTUALNE ZAGROŻENIE?
SMALLPOX — A QUESTION OF HISTORY OR STILL A PRESENT THREAT?

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Smallpox is an acute infectious disease, caused by the variola virus.The pathogen infects only humans and exists in two variants. The most common is variola major, with a high rate of morbidity and mortality, in opposite to milder form — variola minor. The disease spreads mainly by infected saliva droplets. It is characterized by malaise, high fever, muscle pain, severe headache and sometimes vomiting. The typical rash appears on the face, extremities and trunk, firstly as small reddish macules, then papules, vesicles and eventually pustules, which can scab over and leave scars. Long-term complications such as secondary bacterial infections of the skin, encephalitis, arthritis and blindness can also occur. Historical studies claim that smallpox started to appear near Egypt. Afterwards itspread into Asia, Europe, and Northern Africa and then into other continents. It caused devastating outbreaks and hundreds millions ofdeaths. In 1796 first successful vaccine was developed. Edward Jenner discovered that inoculating a healthy person with materialfrom a cowpox lesion could produce immunity to smallpox. It preceded one of the greatest achievements of medicine — globaleradication of smallpox, officially declared in 1979. Despite that, the samples of the variola viruses are still deposited in the USA and Russia. The virus, due to its microbiological and epidemiological characteristics, and very little smallpox immunity in the present world population, could now be used as a biological weapon.

ZMIANY SKÓRNE W INFEKCJI UOGÓLNIONEJ, CZYLI CO *NEISSERIA MENINGITIDIS* MA WSPÓLNEGO Z DERMATOLOGIĄ
SKIN LESIONS IN SEPTICEMIA, NAMELY WHAT NEISSERIA MENINGITIDISHAS TO DO WITH DERMATOLOGY

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Neisseria meningitidis is a Gram-negative bacterium, which may cause the invasive meningococcal infection and meningitis. Children younger than 5 years and adolescents aged 16–25 years are most prone to the disease. Usually the infection starts abruptly with nonspecific symptoms such as fever, general malaise, muscle pain, nausea, and headache. The patient's general condition worsens rapidly and symptoms escalate highly in a short notice. Hemorrhagic rash is typical. Initially, it consists of numerous petechiae, which later on enlarge causing the purpura. These skin abnormalities can become necrotic,which may lead to additional superinfections and may require skin grafting or amputation of necrotic parts of the limbs. Thus, it is crucialto examine every child and young adult with fever towards petechiae. Due to the fact that lower extremities are usually the first to becovered with the rash, those areas should be taken into mainconsideration. Moreover, mucosal membranes, involving the palateand conjunctiva should be examined. Given the progressive character of the disease (and mortality rate of 10-15%), it is necessary to diagnose patients with meningococcemia early and to administer appropriate treatment as soon as possible (third-generation cephalosporines).

GRANULOMA FACIALE — KIEDY MYŚLEĆ O TEJ CHOROBIE?
GRANULOMA FACIALE — WHEN TO THINK ABOUT THIS ENTITY?

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Granuloma faciale (GF) is an uncommon, benign disease of unknown etiology with a chronic and slowly progressive course. The condition is usually asymptomatic and not associated with internal involvement. Middle-aged men are most commonly affected.
The lesions of GF typically present as red-brownish or violet papules, nodules and infiltrated plaques often with telangiectasia and exaggerated follicular openings. Single or multiple facial lesions mostfrequently involve the forehead, cheeks, eyebrows and nose.
The diagnosis is based on clinical features, confirmed by histopathology in which other conditions are excluded. Dermoscopy, immunohistochemistry and direct immunofluorescence may also be helpful.
Differential diagnosis includes sarcoidosis, cutaneous lupus erythematosus, actinic granuloma, cutaneous lymphoma and lymphocytoma.
Diagnosis of GF is based on histology. The histopathological findings of GF include small vessel leukocytoclastic vasculitis associated with apolymorphous dense diffuse inflammatory infiltrate involving the upperreticular dermis with a narrow uninvolved grenz zone beneath the epidermis. The infiltrate consists of eosinophils, neutrophils, and mononuclear cells. The epidermis and adnexal structures are spared. The histopathological features of GF may change with the time of disease evolution.
Although multiple medical and surgical interventions have beenproposed, the disease tends to be refractory to therapy.The diagnosis of granuloma faciale is often overlooked due to relative rarity of the disease and clinical similarity to other conditions. The aimof the study is literature review on diagnostics possibilities of granuloma faciale depending on its evolution.

DIROFILARIOZA — NICIEŃ ODZWIERZĘCY A ZMIANY SKÓRNE
DIROFILARIOSIS — ANIMAL-PARASITIC NEMATODE AND SKIN LESIONS

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Dirofilariosis is a zoonosis caused by filarial nematodes of the Dirofilaria (Onchocercidae), transmitted by mosquitoes. The subcutaneous form is most often caused by the Dirofilaria repens species, where the parasitic lesions are localized in the subcutaneous tissue in the form of nodules, in stronger reactions with erythema, swelling, and itching, or often without any specific clinical symptoms.
Subcutaneous nodules including adult live or dead parasites which are surrounded by granulation tissue. Skin lesions can occur in different parts of the body, mostly in the tissues of the facial regions and the abdominal wall. The diagnosis is difficult because of the relatively rare occurrence in the northern

parts of Europe, and neoplastic tumor is very often suspected as the reason for symptom such as nodule. In the last years, there has been increased in frequency of this zoonotic parasite's occurrences in Europe, which spread from the southern to the northern parts of the continent, and the disease should not be misdiagnosed.
The aim of the presentation is to show dirofilariosis characteristic features and the way it can be diagnosed and treated.

REFLEKSYJNA MIKROSKOPIA KONFOKALNA JAKO NOWE NIEINWAZYNE NARZĘDZIE DO OBRAZOWANIA W DIAGNOSTYCE CZERNIAKA

REFLECTANCE CONFOCAL MICROSCOPY AS A NEW NONINVASIVE IMAGING TOOL FOR DIAGNOSING MELANOMA

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Reflectance confocal microscopy (RCM) is a noninvasive imaging tool used for the diagnosing of cutaneous lesions. In recent years researchers have focused on characterization of RCM features of skin cancers, especially melanoma. Melanoma is a malignant neoplasm of melanocytes, which can be divided into 4 subtypes: superficial spreading, nodular, lentigo maligna and acral lentiginous melanoma.
A systemic literature review using key phrase "reflectance confocal microscopy melanoma" was performed in following databases: ScienceDirect, PubMed, Wiley from January 2014 until December 2019. Superficial spreading melanoma can be diagnosed based on following Pellacani criteria: non-edged dermal papillae, atypical cells at the dermal-epidermal junction, cerebriform clusters in the papillary dermis, isolated nucleated cells within dermal papilla and presence of pagetoid cells, with 97.3% sensitivity and 72.3% specificity. High specificity, nonivasiveness of the method and short time of examination makes RCM an excellent imaging tool for diagnosing superficial spreading melanoma, especially when lesions are located in cosmetically sensitive area. In case of lentigo maligna melanoma RCM is used to determine surgical margins and to asses treatment effectiveness.
Despite many advantages including high compatibility with histopathology examination and higher sensitivity and specificity than dermoscopy, this method couldn't replace histopathology, because of low specificity and limited penetration ability to a depth of 200 microns. Combination of reflectance confocal microscopy can be helpful in doubtful cases, but still histopathology is the gold diagnostic standard for melanoma.

ZASTOSOWANIE TECHNIK OBRAZOWANIA W DERMATOLOGII — NOWE DANE

THE APPLICATION OF IMAGING TECHNIQUES IN DERMATOLOGY — NEW POSSIBILITIES

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Nowadays non-invasive imaging techniques in dermatology are becoming more and more commonly used as an alternative to the gold standard — skin biopsy — which is not only more time consuming but also leads to potential complications.
Thermography measures thermal radiation emitted by the skin and when combined with a thermographic scanner depicts heat patterns, blood flow, inflammation and isotherms. It is used in classifying the severity of burns, assessing microcirculation, diagnosis of melanomas, localized scleroderma, microvascular diseases, allergic reactions.
Thanks to high sensitivity, specificity and a traumatic character of reflectance confocal microscopy it is an additional tool to dermatoscopy in diagnosing skin tumours but it might also lower the number of unnecessary biopsies and proves itself useful in long-term skin monitoring.
Optical coherence tomography allows the examination of skin lesions in-vivoby evaluating the epidermis and superficial layers of dermis with almost histological resolution at the level of individual cells. This technique is used to detect tumor invasion of surrounding tissue, neovascularization, acanthosis or sclerotic lesions of dermal connective tissue.
The ultrasound allows to obtain a full and accurate picture of the skin together with the subcutaneous tissue, which indicates the superiority of this method over other skin imaging techniques. High resolution and good penetration with the use of broadband sensors have now made us able to visualize and support the diagnosis of skin cancers, vascular malformations, scleroderma or inflammatory dermatoses.