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## Vulvar sebaceous hyperplasia — a problematic dermatosis of the vulva

**Authors:** Konrad Gorski, Lidia Korczynska, Beata Spiewankiewicz, Krystyna Swiderska, Monika Baczkowska, Artur Skowyra, Michal Ciebiera

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## CLINICAL VIGNETTE

### **Vulvar sebaceous hyperplasia — a problematic dermatosis of the vulva**

**Short title:** A case of vulvar sebaceous hyperplasia

Konrad Gorski<sup>1</sup>, Lidia Korczynska<sup>1</sup>, Beata Spiewankiewicz<sup>2</sup>, Krystyna Swiderska<sup>2</sup>, Monika Baczkowska<sup>1</sup>, Artur Skowyra<sup>1</sup>, Michal Ciebiera<sup>1</sup>

<sup>1</sup>*2<sup>nd</sup> Department of Obstetrics and Gynecology, Centre of Postgraduate Medical Education, Warsaw, Poland*

<sup>2</sup>*Bielanski Hospital, Inflancka Medical Center, Warsaw, Poland*

#### **Corresponding author:**

Monika Baczkowska

II Department of Obstetrics and Gynecology, Centre of Postgraduate Medical Education, Warsaw

e-mail: monika.baczkowski@gmail.com

#### **ABSTRACT**

Sebaceous glandular hyperplasia (SGH) is a benign form of skin pathology, occurring in approximately one percent of the population. Risk factors for the SGH include advanced age, male sex, exposure to UV radiation and immunosuppression. The pathogenesis of SGH involves hormonal changes, is also regulated by insulin levels, thyroid stimulating hormone (TSH) and cortisol. SGH manifests itself as solitary or multiple light-yellow lumps, 2–3 mm big, with a smooth surface and a central umbilical depression. The vulvar localization of lesions is extremely rare and presents with a polymorphous clinical picture, posing a major diagnostic problem. A 40-year-old patient presented to the clinic due to vulvar skin lesions, periodically with the swelling of the labia and itching, with the symptoms deteriorating for approximately two years. The patient has been consulted by several doctors; however, the diagnosis has not been established. She did not receive adequate treatment either. On physical examination, attention was drawn to the overgrown labia minora — especially on the right side — with a network of abnormal vessels and numerous small papular lesions. SGH was

diagnosed, based on the samples collected from the vulva. The patient was recommended isotretinoin therapy and referred to a dermatologist for a consultation. The presented case of vulvar SGH is interesting and rare. It is a diagnostic challenge with no established treatment standards. Nonetheless, SGH should be considered in the differential diagnosis of vulvar skin lesions. The comprehensive and interdisciplinary care is needed to help patients struggling with this insidious condition.

**Key words:** sebaceous glands; sebaceous gland diseases; skin; skin diseases; vulvar diseases

Sebaceous glandular hyperplasia (SGH) is a relatively common benign form of skin pathology, occurring in approximately one percent of the population. Risk factors for the SGH include advanced age, male sex, exposure to UV radiation and immunosuppression. The incidence of SGH may exceed 10% among patients receiving systemic corticosteroid therapy. Interestingly, SGH may be a specific iatrogenic lesion associated with the use of cyclosporine in transplant recipients [1].

SGH manifests itself as solitary or multiple light-yellow lumps, 2–3 mm big, with a smooth surface and a central umbilical depression. Skin lesions are mostly located on the skin of the face — forehead, nose and cheeks. The SGH may occur in other locations, e.g., on the skin of the chest or vulva, however the vulvar manifestation is extremely rare [2]. In the case of vulvar location the clinical picture varies from the classical appearance to even the hypertrophy of the labia minora [3]. Lesions in the genitourinary area are often accompanied by itching, burning, pain in the labia or the occurrence of vaginal discharge. In many cases, the clinical picture is ambiguous and may pose a major diagnostic problem.

A 40-year-old patient presented to the clinic due to vulvar skin lesions, periodically with the swelling of the labia and itching, with the symptoms deteriorating for approximately two years. The patient did not identify any factors aggravating the symptoms. The patient has been consulted by several doctors; however, the diagnosis has not been established. She did not receive adequate treatment either.

The patient was earlier diagnosed with the Gilbert syndrome and, due to episodes of fecal incontinence, the suspicion of neurogenic damage to the sphincter muscles. The patient did not use any medications on a regular basis. The patient's family history of neoplastic disease was negative. She had the history of three vaginal deliveries and a plastic surgery of

the breast, followed by the removal of breast implants due to abnormal wound healing and implant intolerance.

On physical examination, attention was drawn to the overgrown labia minora – especially on the right side – with a network of abnormal vessels. The labia minora were covered with numerous small papular lesions (Fig. 1A, B). SGH (Fig. 1C, D) was diagnosed, based on the samples collected from the vulva. The patient was recommended isotretinoin therapy and referred to a dermatologist for a consultation.

Histopathologically, glandular hyperplasia corresponds more to hamartoma than neoplasia. The microscopic picture is characterized by a single enlarged sebaceous gland composed of numerous mature or almost mature sebaceous lobules grouped around a centrally located broad sebaceous duct. Immunohistochemical staining for the androgen receptor may be a specific marker of sebaceous lesions compared to other skin diseases, including neoplastic ones, such as basal cell or squamous cell carcinoma [4]. The pathogenesis of SGH involves hormonal changes, especially a reduction in the level of androgens. The proliferation of sebaceous cells is also regulated by insulin levels, thyroid stimulating hormone (TSH) and cortisol. A separate mechanism is described for changes associated with cyclosporine treatment. It is believed that in case of vulvar SGH, the lesions affect younger patients, with a greater share of inflammatory or infectious factors in the pathogenesis. SGH may be diagnosed in patients with urinary tract infections or vulvovaginitis. The clinical picture may also be similar to vulvar lichen sclerosus or contact dermatitis. The exclusion of basal cell carcinoma is of particular importance in the differential diagnosis. The differential diagnosis should also include sebaceous nevus, sebaceous adenoma, sebaceous epithelioma, molluscum contagiosum, and xanthoma [2, 4].

The use of isotretinoin is highly effective in the treatment of SGH, however, associated with a high risk of recurrence and possible troublesome side effects. Other recommended methods of SGH therapy include trichloroacetic acid (TCA), electrodesiccation, curettage or shave excision methods. Alternative treatment modalities include topical photodynamic therapy (PDT), laser (carbon dioxide- or pulsed dye-laser), and cryotherapy. In some cases, the management only consists of observation and systematic follow-up [5].

The presented case of vulvar SGH is interesting and rare. The condition may significantly decrease the patient's quality of life. It is a diagnostic challenge due to the polymorphous clinical picture, rare vulvar localization and low specificity of symptoms. Also, no treatment standards have yet been established for such patients. Nonetheless, especially in ambiguous cases, SGH should be considered in the differential diagnosis. It is also worth

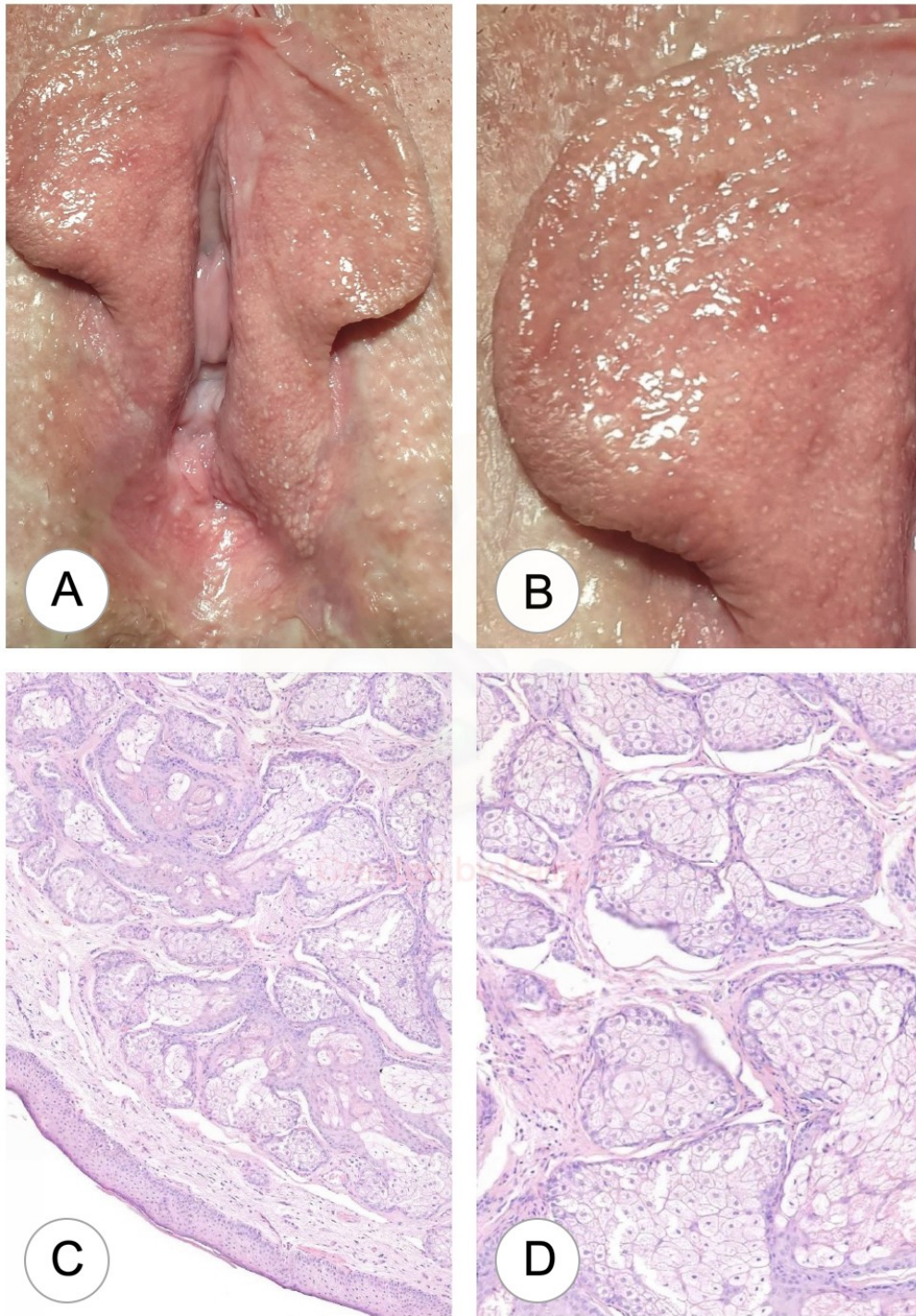
considering the registry of patients with rare dermatological lesions of the vulva. Comprehensive and interdisciplinary care is needed to help patients struggling with this insidious condition.

### ***Conflict of interest***

All authors declare no conflict of interest.

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**Figure 1.** A. The vulva – overgrown labia minora covered with numerous small papular lesions, with a network of abnormal vessels. B. Right labia minora with a visible nodular lesion. C. SGH microscopic image – H&E staining, object magnification 5x. D. SGH microscopic image – H&E staining, object magnification 10x.