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SESSION OF ORIGINAL PAPERS AND CLINICAL CASES

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DOES ABNORMAL CARDIAC SYMPATHETIC ACTIVITY CORRELATE WITH VENTRICULAR ARRYTHMIAS IN DILATED CARDIOMYOPATHY?

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Introduction: One of the leading causes of death in dilated cardiomyopathy (DCM) is ventricular arrhythmia, leading to sudden cardiac death. The risk of ventricular tachycardia (VT) increases with the progression of heart failure (HF), characterized by worsening left ventricular contractility and increased myocardial fibrosis. It is suggested that abnormal cardiac sympathetic nervous system (SNS) activity may also contribute to the increased occurrence of arrhythmias, including complex ventricular arrhythmia; however, detailed studies, particularly in DCM, are lacking. Therefore, this study aim was to analyse the relationship between arrythmias and cardiac SNS activity, assessed using single-photon emission computed tomography with ^{123}I-meta-iodobenzylguanidine (SPECT-MIBG) in DCM.

Material and methods: Twenty-one newly diagnosed (< 6 months) consecutive DCM patients [mean age 47.2 ± 10.2 years, 90% male, left ventricular ejection fraction (LVEF) 29.5 ± 8.7%, left ventricular end-diastolic volume (LVEDV) 114.3 ± 35.9 mL/m^2, New York Heart Association (NYHA) 1.8 ± 0.58] with stable HF symptoms (NYHA I–III for at least 2 weeks), underwent SPECT-MIBG imaging and 48-hours electrocardiogram (ECG) monitoring. DCM was diagnosed in case of LV enlargement and impaired systolic function, in absence of (a) significant coronary artery disease, (b) primary heart valve disease, (c) congenital heart disease, and (d) severe arterial hypertension. 15 minutes and 4 hours after intravenous injection of MIBG, planar anterior and lateral images of the chest were acquired. A region of interest over the heart (H) and the upper mediastinum (M) were

manually drawn, where M served as the reference background. MIBG uptake was obtained for each region of interest (ROI), and the H/M activity ratio was determined from the anterior planar images. Based on H/M ratios the washout rate was calculated as follows: WR = [H/M – 15 – H/M – 4] / H/M – 15). Based on 48-hours ECG monitoring patients were divided according to VT presence. This research was funded by the National Science Centre, Poland, grant number 2020/37/N/NZ5/03306.

Results: Seven (33%) patients were diagnosed with VT. They were older (52.0 ± 7.2 *vs.* 44.8 ± 10.8 years, p = 0.04), had worse right ventricle systolic function [fractional area change (FAC) 35.9 ± 10.5 *vs.* 40.6 ± 9.9%, p = 0.03) and higher estimated pulmonary atrial systolic pressure (33 ± 11 *vs.* 24 ± 6 mmHg, p = 0.03). However, they had similar left ventricle systolic function (LVEF 28.0 ± 9.3 *vs.* 30.2 ± 8.7%, p = 0.60) and NYHA class (1.9 ± 0.2 *vs.* 1.8 ± 0.7, p = 0.52). There were no differences in SPECT-MIBG imaging results between groups (H-15: 651 ± 259 *vs.* 762 ± 304, p = 0.53; M-15: 431 ± 158 *vs.* 469 ± 170, p = 0.85; H/M-15: 1.51 ± 0.20, *vs.* 1.60 ± 0.15, p = 0.19; H-4h: 492 ± 102 *vs.* 559 ± 165, p = 0.39; M-4h: 362 ± 44 *vs.* 375 ± 90, p = 0.91; H/M-4h: 1.35 ± 0.15 *vs.* 1.48 ± 0.20, p = 0.13; WR: 10.47 ± 5.24 *vs.* 8.20 ± 5.56%, p = 0.48. Additionally, SPECT-MIBG results did not correlate with any of the 48-hours ECG monitoring results, including mean heart rate, supra- and ventricular extrasystole per hour (all p > 0.05).

Conclusions: Complex ventricular arrhythmias are a common phenomenon in DCM and occurred in one-third of the patients. Although ventricular arrhythmias have been reported to be associated with abnormal SNS activity in some cardiac diseases, we did not find a similar association in DCM patients.

SUBENDOCARDIAL LATE GADOLINIUM ENHANCEMENT — IS ALWAYS ISCHEMIC ETIOLOGY?

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Background: Cardiac magnetic resonance (CMR) imaging, especially with late gadolinium enhancement (LGE), is a valuable clinical tool in diagnostic of patients with heart failure (HF) or left ventricular (LV) dysfunction. The aim of our study is presentation of the case of a 19-year-old female patient referred for CMR imaging to determine the etiology of HF in New York Heart Association (NYHA) class II/III.

Methods: The examination was performed on a 1.5T scanner (Avanto fit, Siemens, Erlangen, Germany) according to the classic protocol with LGE. The protocol was extended with T1 and T2 mapping.

Results: The examination revealed an enlarged left heart cavity with reduced ejection fraction (LVEF 34%). LGE images revealed extensive subendocardial LGE foci typical of fibrotic foci of ischemic etiology/post-infarction scar. However, the changes covered the entire endocardium and did not correspond to the area of vascularization of individual coronary arteries. Moreover, due to her young age and the normal image of the coronary arteries, the patient had a low probability of having suffered a large myocardial infarction. Analysis of images taken in the T2 mapping sequence led to the suspicion of extensive myocardial edema and, therefore, active myocarditis. In correlation with the LGE pattern, giant cell myocarditis or lymphocytic infiltration seemed most likely. An endomyocardial biopsy performed in the patient confirmed lymphocytic infiltration with destruction of individual cardiomyocytes and thickening of the walls of some arterioles.

In the electrocardiogram (ECG) recording, right bundle branch block (RBBB) with left posterior bundle branch block, followed by complete AV block in the absence of vascular access, resulted in implantation of the MICRA-AV electrodeless pacing system. In a follow-up examination performed 4 months after implantation, fully diagnostic images were obtained, without artifacts, and myocardial edema had disappeared and fibrosis was still present with secondary, partial LV retraction and further deterioration of LV function (LVEF 25% *vs.* 35% in the previous examination).

Conclusions: The described case confirms the need for a comprehensive analysis of each CMR imaging examination, proving that subendocardial foci of fibrosis do not exclude etiologies other than ischemic. Moreover, the CMR imaging phenotype of subendocardial involvement in myocarditis indicated more severe clinical features, including a higher frequency of severe lymphocytic myocarditis and worse prognosis.

COR TRIATUM SINISTRUM IN A 62-YEAR-OLD FEMALE PATIENT

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Background: Cor triatriatum sinistrum (CTS) is a rare congenital heart malformation characterized by a perforated fibromuscular membrane separating the left atrium into two chambers, predominantly involving the left atrium. The estimated incidence of CTS is 0.1% of all congenital heart diseases. In CTS a fibromuscular membrane partitions the left atrium into two chambers: one receiving blood from the pulmonary veins, and the other connecting to the left ventricle via the mitral valve. This disorder exhibits varying clinical manifestations depending on the degree of partitioning or septation of the atrium.

Methods: We report an extreme rare case of a 62-year-old woman who was hospitalized due to loss of breath (NYHA II/III). Transthoracic echocardiography (TTE) revealed a linear structure dividing the left atrium into upper and lower portions, without signs of flow restriction, along with mild mitral valve insufficiency; the remainder of the examination was unremarkable. Cardiac magnetic resonance imaging (MRI) was performed for a more detailed assessment of the left atrial defect and revealed a triatrial heart with a septum in the left atrium dividing it into a portion derived from the venous sinus and the true left atrium. Additionally, there were at least two connections between the portion

derived from the venous sinus and the true left atrium, without any flow restrictions.

Results: Due to the overall clinical condition, minor functional limitations, normal hemodynamic and echocardiographic parameters, the patient was classified into a strict observation group.

Conclusions: Cor triatriatum sinistrum is a rare congenital defect, and symptoms in adulthood depend on anatomical and functional aspects as well as associated congenital defects. TTE remains the primary screening test for congenital heart disease, with high correlation with MRI imagining.

SAFETY OF MAGNETIC RESONANCE IMAGING IN A PATIENT WITH A TEMPORARY EXTERNAL CARDIOVERTER-DEFIBRILLATOR

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Introduction: There is evidence indicating that 1.5T MRIs may be performed in patients with transvenous pacemaker active fixation leads implanted to externalized pacemakers used for temporary pacing.

We present the case of a 69-year-old man with a temporary cardioverter-defibrillator (ICD) who underwent an MRI examination of the sacro-lumbar spine due to presence of spinal abscesses and inflammation of the intervertebral discs in a previous MR examination.

Material and methods: The patient underwent implantation of a dual-chamber ICD due to primary prevention of sudden cardiac death 3 years ago. Due to lead related infectious endocarditis (*Staphylococcus aureus*), targeted antibiotic therapy was initiated, and the patient was referred to for transvenous lead extraction (TLE) procedure. Inspection of the ICD system revealed a high percentage of atrial pacing and numerous anti-tachycardia pacing (ATP) episodes. As a result, the patient was scheduled for TLE with simultaneous implantation of temporary ICD system. TLE was performed without complications. During the TLE procedure, a temporary dual-coil transvenous cardioverter-defibrillator with active fixation lead was implanted and connected to an external cardioverter-defibrillator for temporary pacing and ATP or cardioversion/defibrillation therapy. Despite completing a full course of targeted antibiotic therapy, highly elevated levels of inflammatory markers were still recorded, accompanied by severe spinal pain reported by the patient. The patient was again referred for a follow-up MRI examination of the spine to assess the dynamics of the disease and possible qualification for neurosurgical treatment.

Results: MRI of the sacro-lumbar spine using a 1.5T scanner was uneventful. Based on the diagnosis, the patient was qualified for conservative treatment.

Conclusions: 1.5T MRIs may be safely performed in patients with temporary transvenous cardioverter-defibrillator used for temporary pacing or ATP/defibrillation therapy.

UNVEILING CARDIAC COMPLICATIONS: A CASE REPORT OF ANABOLIC STEROID ABUSE IN A ATHLETE

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Introduction: Anabolic steroids are a group of hormones of natural or synthetic origin, which include derivatives of testosterone and 19-nortestosterone. They have an anabolic effect due to the activation of androgen receptors. Supplementation with testosterone derivatives is a common practice among athletes, causing a negative impact on the overall hormonal balance of the body. The aim of the study is to present the role of magnetic resonance imaging in the diagnosis of functional and morphological changes in the athlete's heart and in differentiating it from damage resulting from the abuse of anabolic steroids.

Case presentation: A case of a 40-year-old bodybuilder with limited exercise tolerance, expiratory dyspnea, high blood pressure, and heart palpitations is presented. The patient took testosterone intramuscularly for 1 year. Cardiac scintigraphy revealed changes in the inferolateral and inferior walls and at the apex, covering 19% of the left ventricular surface. Coronary angiography revealed epicardial arteries without atherosclerotic changes. Cardiac magnetic resonance imaging showed enlargement of all heart chambers. After administration of contrast, an intramural area of late contrast enhancement was visualized at the junction of the inferior and inferoseptal walls of the left ventricle (at the level of the middle segments), confirming non-ischemic damage to the myocardium.

Conclusions: Athletes using anabolic steroids should be under close medical supervision to determine possible complications of supplementation. Magnetic resonance imaging is an examination increasingly used to diagnose morphological and functional changes in an athlete's heart and damage resulting from excessive supplementation of anabolic steroids.

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ALL HANDS ON DECK — ROLE OF MULTIMODALITY IMAGING AND ENDOMYOCARDIAL BIOPSY IN CARDIAC TUMOURS

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Introduction: A 69-year-old patient after radiofrequency ablation of numerous ventricular extrasystoles in 2023, with implantable cardioverter-defibrillator (ICD) implanted in primary prevention of sudden cardiac death in 2022, with paroxysmal atrial fibrillation, hypertension, type 2 diabetes, chronic obstructive pulmonary disease (COPD) was admitted to the Institute of Heart Diseases in January 2024 due to the decompensation of chronic heart failure with reduced ejection fraction (LVEF 24%). In the last year the patient was diagnosed with mediastinal lymphadenopathy and pulmonary sarcoidosis was excluded.

Material and methods: Due to increased D-dimers on admission, computed tomography pulmonary angiogram was performed where pulmonary embolism was excluded, however a massive contrast defect (7.5 × 7.4 cm) in the right atrium was detected with suspicion of thrombus or focal lesion. Further transthoracic echocardiography described an oval, solid, hypoechoic structure in the right atrium extending to the superior vena cava causing its luminal narrowing. Cardiac magnetic resonance showed a solid mass adjacent to the right atrial roof with an additional mass at the interatrial septum suggestive of neoplasm based on tissue characteristics. Positron emission tomography/computed tomography with fluorine-18-deoxyglucose showed metabolic activity within described mass and lymph nodes on both sides of the diaphragm. For final diagnosis an endomyocardial biopsy of the cardiac mass was performed and histopathological analysis indicated B-cell lymphoma with positive CD20 and co-expression of CD5 and CD23, suggesting small lymphocytic lymphoma (SLL).

Results: Blood tests showed no clonal lymphocytes, therefore chronic lymphocytic leukemia was excluded, and SLL diagnosis was confirmed. Patient was qualified for rituximab-cyclophosphamide, vincristine, prednisone (R-CVP) based immunochemotherapy.

Conclusions: In case of cardiac tumours, a multimodality imaging is crucial for first diagnostic workout and decision to perform endomyocardial biopsy for final diagnosis.

ASSESSMENT OF MYOCARDIAL INVOLVEMENT IN FABRY DISEASE USING ADVANCED IMAGINIG TECHNIQUES BASED ON 63-YEARS-OLD PATIENT'S DIAGNOSCTICS

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Background: Fabry disease is an X-linked lysosomal storage disorder caused by a deficiency in the alpha-galactosidase A enzyme. This deficiency leads to the progressive accumulation of globotriaosylceramide in the cells of various tissues and organs, disrupting their function. Fabry's disease can manifest in different ways, making diagnosis challenging. Additionally, the clinical presentation evolves with the patient's age, posing additional diagnostic difficulties. The cardiac manifestation of the disease typically occurs in the third and fourth decades of life. At that time, symptoms such as angina, worsening tolerance to physical exertion, rhythm and conduction disturbances, resulting from myocardial hypertrophy and storage become part of the clinical picture.

Case report: We present a case of a patient whose diagnosis process was prolonged, and it was the cardiac manifestations of the disease that ultimately led to the accurate diagnosis. A 63-year-old man with a significant family history of sudden cardiac death, who had had previously undergone cardiac pacemaker implantation due to 2:1 atrioventricular block was admitted to the cardiology clinic due to poor tolerance to physical exertion and palpitations. Based on a thorough analysis of clinical data, medical records, and imaging studies (including echocardiography and cardiac MRI), suspicion of Fabry disease was raised. The patient was referred to the Department of Cardiology in a Specialist Hospital, where the diagnosis was confirmed based on enzymatic assays.

Conclusions: Cardiovascular manifestations are commonly observed in individuals with Fabry disease, affecting 40–60% of patients, both men and women, and representing a substantial contributor to premature mortality. Early diagnosis along with native cardiac T1-mapping on MRI images enables the assessment of myocardial involvement at an early stage, before hypertrophy and fibrosis of the left ventricular muscle occur.

SCINTIGRAPHY IN THE DIAGNOSIS OF INFECTIVE ENDOCARDITIS: A CASE REPORT

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Introduction: Infective endocarditis (IE) is characterized by a complex clinical course, ranging from non-specific symptoms persisting for weeks to life-threatening systemic infections. The multifaceted nature of IE makes diagnosis and definitive identification challenging for clinicians. Advanced imaging techniques are often required. Scintigraphy, a nuclear medicine technique, is a significant method for identifying inflammatory foci in the course of IE. The objective of this study is to present the role of scintigraphy using technetium ^{99m}-hexamethylpropyleneamine oxime-labeled leukocytes in the diagnosis of infective endocarditis based on a clinical case report, especially in situations where standard imaging methods are not feasible.
Material and methods: We present the case of an 81-year-old woman with a history of cardiovascular diseases, admitted to the hospital electively for extended cardiovascular diagnostics before a planned transcatheter aortic valve implantation (TAVI) procedure. During hospitalization, the patient developed a fever with accompanying chills and profuse sweating. Laboratory tests revealed blood cultures positive for methicillin-sensitive *Streptococcus aureus* (MSSA) and increased levels of inflammatory markers. Due to the presence of a biological aortic valve and suspicion of IE, an attempt was made to perform transesophageal echocardiography, which was unsuccessful. Scintigraphy with technetium ^{99m}-hexamethylpropyleneamine oxime-labeled leukocytes was performed, showing increased tracer uptake directly in front of and behind the biological aortic valve, consistent with an inflammatory process.
Results: Scintigraphy revealed intense radiopharmaceutical uptake in front of and behind the biological aortic valve, indicative of an inflammatory process. Based on these findings and laboratory tests, targeted antibiotic therapy with cloxacillin was initiated. During further hospitalization, an improvement in the patient's clinical condition was observed.
Conclusions: This case highlights the importance of scintigraphy in diagnosing infective endocarditis in clinical situations where standard diagnostic procedures are challenging to perform. Scintigraphy proved effective in identifying inflammatory foci, enabling early diagnosis and effective monitoring of treatment in patients with IE. Further studies are needed to better understand the significance of this diagnostic procedure in patients with IE.

THE ROLE OF PET IMAGING IN THE DIAGNOSIS OF INFECTIVE ENDOCARDITIS ASSOCIATED WITH AN IMPLANTABLE DEVICE: A CASE REPORT

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Introduction: Cardiac device-related infective endocarditis (CDRIE) represents a significant challenge in clinical practice, with a substantial threat of complications and significant risk associated with lead extraction. Although echocardiography remains the primary imaging modality, its sensitivity and specificity can be limited. Positron emission tomography imaging with fluorodeoxyglucose ([^{18}F]FDG PET/CT) is a valuable diagnostic tool in this situation.
Material and methods: An 82-year-old male with a history of chronic heart failure and reduced left ventricular ejection fraction who was implanted with a single-chamber cardioverter-defibrillator (ICD) for the primary prevention of sudden cardiac death was admitted due to an electrical storm and paroxysmal third-degree atrioventricular block. The patient was treated with an intravenous infusion of lidocaine and dobutamine, as well as a loading dose of amiodarone. Coronary angiography revealed a chronically occluded left anterior descending artery and right coronary artery, and the patient was referred for further conservative treatment. During hospitalization, the patient exhibited persistently elevated levels of inflammatory parameters accompanied by fever. A chest HR CT scan revealed inflammatory changes in the lungs and bronchi, prompting the initiation of empirical antibiotic therapy. All blood cultures remained negative. Despite antibiotic therapy, there was no decrease in inflammatory parameters. Consequently, transthoracic and then transesophageal echocardiography were performed to search for possible vegetations associated with infective endocarditis. A thickening and soft additional echoes of approximately 10–15 mm in length were identified on the ventricular lead of the ICD in its atrial part. Given the suspicion of CDRIE and the potential need to remove the system, in the context of negative microbiological cultures, [^{18}F]FDG PET/CT was performed.
Results: [^{18}F]FDG PET/CT imaging demonstrated no significant [^{18}F]FDG uptake within the ICD system or cardiac tissues, while confirming metabolic inflammatory activity within the lung parenchyma. The patient's further treatment focused on treating pneumonia and optimizing heart failure treatment, including upgrading the ICD system to a cardiac resynchronization-enabled device following the completion of antibiotic therapy.
Conclusions: According to the 2023 ESC recommendations, the diagnosis of CDRIE requires a comprehensive approach, including the use of advanced imaging modalities. The incorporation of [^{18}F]FDG PET/CT into the diagnostic algorithm enables the precise exclusion of infection, thus identifying patients who can avoid both unnecessary intensive antibiotic therapy and potentially risky implantable device extraction procedures.

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CARDIAC AMYLOIDOSIS. INSIDIOUS, ISOLATED AND FULMINANT FACE OF THE DISEASE: A CASE REPORT

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Background: Amyloidosis is a systemic disease that results from the deposition of fibrillar protein in extracellular space, which slowly cause dysfunction of affected organ. Multiple clinical scenarios and difficult diagnostic results in delayed diagnosis and therefore in limited options for effective therapy.

Case presentation: 63-year-old man, after bladder cancer surgery, without any other comorbidities, was admitted to hospital due to symptoms of sudden onset of left ventricular heart failure and suspicion of myocardial infarction. In electrocardiography (ECG) sinus rythym, QS in V1–V4 with persistent ST segment elevations and small-amplitude of QRS complexes was found. Echocardiography revealed significant concentric left ventricular hypertrophy with mildly impaired global contractility [left ventricle ejection fraction (LVEF) 49%] and diastolic dysfunction. Because of many years of tobbaco addiction, exertional chest pain and elevated markers of myocardial injury, coronary angiography was performed, confirming atherosclerotic changes, without significant stenoses. Typical treatment of heart failure and chronic coronary syndrome was initiated [angiotensin converting enzyme inhibitor (ACE-I), beta blocker (BB), sodium-glucose cotransporter 2 inhibitor, diuretics, aspirin, statin], with rapid clinical improvement and the patient was discharged for further outpatient diagnostic. A month later patient was admitted to another hospital because of chest pain and dyspnea. Acute coronary syndrome was excluded again, and then etiologic diagnostic of prior diagnosed heart failure with mildly reduced ejection fraction (HFmrEF) was started. A cardiovascular magnetic resonance imaging (CMR) examination was performed, which revealed progressing decline in LVEF up to 40% and signs suggestive for amyloidosis (concentric LV hypertrophy, difficulties with LGE imaging, LV mapping with diffuse prolongation of longitudinal relaxation times and high values of extracellular volume).
However, SPECT scan with 99mTc-DPD excluded transthyretin amyloidosis (ATTR). After the patient's stabilization, blood samples were taken before discharge to determine the levels of immunoglobulin light chains and immunofixation of serum proteins. Less than a month later, third hospitalization occured. At admission dyspnea dominated again. Echocardiography showed a further decrease in LVEF to 34%, low-flow condition (VTI 10.2 cm, CO 1.6L/min), significantly lowered longitudinal strain with apical sparing, right ventricular systolic dysfunction, and significant tricuspid valve regurgitation. During hospitalization, a heart biopsy was performed — massive amyloid depositions were observed. Previously taken laboratory tests showed a presence of a monoclonal protein in serum — lambda light chains. The bone marrow biopsy showed clonality of plasmocytes. Finally, light chain (AL) amyloidosis was diagnosed. During rapid qualification for treatment in a drug program (daratumumab, bortezomib, cyclophosphamide, dexamethasone), after initial clinical improvement, intolerance to ACE-I and BB, increasing overhydration resistant to diuretics and dependence on catecholamines appeared. Despite of treatment, several cardiac arrests in PEA mechanism occurred and after all the patient died.

Results: Light chain amyloidosis is most common type of amyloidosis among patients with heart involvement. Additionally, in the case of AL amyloidosis, cardiac involvement makes the patient's prognosis extremely unfavorable. Life expectancy since diagnosis vary, however, it is usually shorter than several months. In the described case, the patient did not have any other extracardiac symptoms that would have previously led to suspicion of amyloidosis. Within less than three months from the onset of the first symptoms, virtually all available diagnostic was performed, with each test showing characteristic changes that provided a reliable diagnosis. The exceptionally dynamic course of the patient's disease did not allow for initiation of causal treatment early enough.

Conclusions: In cardiac amyloidosis, typical pharmacological treatment of heart failure has only supportive role. Attention should be paid to establish the diagnosis as quickly as possible and qualify for currently available drug programs, which are the only chance to extend life expectancy of this patients.

AORTIC STENOSIS AND CARDIAC AMYLOIDOSIS — RED FLAG OR SIMPLE COINCIDENCE: PILOT STUDY

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Background: Recently, with the non-invasive diagnosis of transthyretin amyloidosis (ATTR) with ^{99m}-technetium-3,3-diphosphono-1,2-propanodicarboxylic acid scintigraphy (DPD-SPECT), we have observed an increasing number of older patients with concurrent ATTR and significant aortic stenosis (AS). This raises the question of whether this is merely a coincidence within the elderly population or if ATTR contributes to the progression of AS. This study aims to determine epidemiology and clinical characteristic of AS patients with coexisting cardiac amyloidosis (CA) compared with isolated AS.

Methods: 65 years old or older patients with severe AS who were referred to a tertiary hospital for the evaluation for surgical valve replacement were included from 05.2023. All Patients underwent DPD-SPECT, laboratory tests and transthoracic echocardiography. ATTR-CA was diagnosed in patients with Perugini grade 2–3 in DPD-SPECT after excluding light chain amyloidosis (AL).

Results: DPD-SPECT yielded positive results in 13 patients (23.2%), among whom 11 (19.6%) exhibited Perugini grade 2–3, including 1 patient with AL amyloidosis. AS patients diagnosed with ATTR-CA had higher NT-proBNP (10395 ± 13084 *vs.* 3157 ± 5340 pg/dL, p = 0.008) and were older (82,9 ± 3.7 *vs.* 76.4 ± 6.4).

Conclusions: ATTR is a frequently underestimated condition that presents diagnostic challenges, especially in patients with concurrent AS. Primarily affecting the elderly, it's often linked with heart failure and musculoskeletal issues. Considering ATTR in the diagnostic process is crucial for proper management, including potential tafamidis therapy. However, these initial findings require careful interpretation and validation through multicenter studies involving a substantial number of AS patients.