TEPROTUMUMAB - THE NEW BIOLOGICAL TARGET IN THE MANAGEMENT OF THYROID ORBITOPATHY

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Background. Thyroid orbitopathy (OT) represents a complex autoimmune condition with a varied ocular clinic such as diplopia, diminished vision and progressive alterations in facial appearance. Traditional treatments show limited efficacy regarding the structural components of the disease such as proptosis and diplopia.
Objective(s). Highlighting innovative treatment methods in OT particularly focusing on targeted biological treatment represented by Teprotumumab - a monoclonal antibody directed against the IGF-1R receptor.
Materials and methods. Review of current data analyzing PubMed, ScienceDirect and Elsevier scientific publications and articles, published between 2016-2022 regarding the pathogenetic mechanism of OT, underlining the results obtained regarding the efficacy of teprotumumab - the antibody directed against the insulin-like growth factor receptor 1.
Results. By blocking the IGF-1R/TSHR pathway, teprotumumab reduces the release of proinflammatory cytokines. This causes the stimulation of orbital fibroblasts and the deposition of hyaluronan - thus contributing to the expansion of adipose tissue and extraocular muscle, the development of edema and inflammation. Therefore, this monoclonal antibody can reduce the signaling initiated at either receptor, blocking any pathological immune response in Thyroid Orbitopathy. Its efficacy in reducing proptosis, improving diplopia and decreasing disease activity has led to its approval as the first targeted biologic treatment for OT.
Conclusion(s). Recent clinical studies with reference to the pathogenesis of thyroid orbitopathy indicate an advanced transition from nonspecific anti-inflammatory therapies to individualized biological approaches. Therefore, teprotumumab marks a significant advance in this direction.
Keywords: teprotumumab, orbitopathy, antibody, receptor, biologic

ANATOMICAL VARIANTS OF MEDIASTINAL ORGANS

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Background. Variants of mediastinal organs have significant clinical importance in various and numerous medical and surgical contexts. Anatomical variants of mediastinal organs may be congenital or acquired, symptomatic or asymptomatic, and can be mistaken for pathologies on CT, MRI, or ultrasound imaging.
Objective(s). Knowledge of mediastinal variants is crucial in thoracic surgery and image-guided interventions to avoid complications, to guide treatment and therapeutic strategy accurately.
Materials and methods. A total of 24 mediastinal complexes from the Department of Anatomy and Clinical Anatomy at "Nicolae Testemițanu" State University of Medicine and Pharmacy were analyzed. The study involved 60 patients who underwent advanced imaging investigations, including CT, MRI, and angiography, using data from the Diagnostic Center database.
Results. Variants of mediastinal organs were found in all compartments. In the anterior

mediastinum, thymus variants included an accessory lobe, persistence in adults, and retrovenous location behind the brachiocephalic vein. In the middle mediastinum, nerve variants involved the phrenic nerve crossing in front of the subclavian vein, an accessory phrenic nerve, and a duplicated left recurrent laryngeal nerve. In the posterior mediastinum, variations were observed in the azygos venous system (such as vein fusion or absence of the accessory hemiazygos vein) and in the thoracic duct (with double, serpiginous, or spiral course).
Conclusion(s). All mediastinal organs – viscera, nerves, and blood vessels – may present anatomical variations. Only some of these can be identified preoperatively through imaging. Awareness of such variants is essential for surgeons to avoid intraoperative complications and morbidity.
Keywords: variants of mediastinal viscera, azygos veins, thoracic duct

BEHÇET'S DISEASE: DIAGNOSTIC AND THERAPEUTIC CHALLENGES IN THE CONTEXT OF A RARE MULTISYSTEM DISORDER.

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Background. Behçet's Disease (BD) is a chronic, recurrent, multisystem vasculitis of unknown etiology, primarily affecting small- and medium-sized vessels. It is more commonly encountered in regions along the former "Silk Road," particularly in Turkey, the Middle East, and East Asia, but remains a rare in Europe.
Objective(s). To present the main clinical manifestations, diagnostic criteria and current therapeutic approaches in Behçet's Disease, with a focus on the importance of multidisciplinary evaluation and treatment.
Materials and methods. This work is based on a review of recent specialized literature (from the past 10 years), including international guidelines (EULAR), original articles, meta-analyses, and case studies. The international classification criteria (ICBD) are described, and the main therapeutic options are analyzed based on disease severity and organ involvement.
Results. The clinical manifestations of the disease are varied: recurrent oral ulcers (95%) and genital ulcers (68%), skin lesions (erythema nodosum, pseudo-folliculitis) (65%), ocular involvement – uveitis (40%), neurological (20%), articular (50%), gastrointestinal (15%), and cardiovascular (<10%) involvement. Diagnosis is clinical, supported by standardized scoring systems. Treatment involves immunomodulatory and immunobiologic agents, tailored according to the severity and the organs involved. The prognosis depends on the disease onset, the response to conventional immunosuppressive treatment, and the patient's quality of life.
Conclusion(s). Behçet's Disease presents both diagnostic and therapeutic challenges due to its heterogeneous nature and the lack of specific biological markers. Early diagnosis and individualized therapeutic approaches, coordinated by a multidisciplinary team, are essential for reducing complication risks.
Keywords: vasculitis, uveitis, treatment, diagnostic, Behcet's disease