GALECTIN-3 AND SEVERITY OF ATHEROSCLEROSIS IN CORONARY ARTERIES OF ABDOMINALLY OBESE STEMI PATIENTS

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Relevance. At present, a great amount of traditional scales, such as GRACE, TIMI risk, are being used routinely as objective non-invasive method for assessing the severity of coronary artery disease. Engaging such new parameters is considered as a promising direction of modern medicine nowadays. One such parameter is galectin-3, which is involved in immune-inflammation, cell differentiation and fibrosis.

Purpose. The aim is to analyze the condition of the coronary arteries (CA) in STEMI and concomitant abdominally obese patients by percutaneous coronary intervention (PCI) and to estimate the presence and character of a relation between CA atherosclerotic lesions, (determined by Gensini score), and concentration of galectin-3.

Materials and methods. 32 STEMI patients with abdominal obesity between the age of 58.4 ± 3.2 years admitted to the infarction department of the State Clinical Hospital №27 were included in the study. On this cohort of patients PCI with further stenting of the infarction-dependent CA was performed within 12 hours of onset of Levine sign. The severity of atherosclerosis in coronary arteries noticed during PCI was evaluated by Gensini scale. Human Galectin-3 ELISA Kit (China) was used to evaluate Galectin-3.

Results. In 20 (62.5%) obese STEMI patients, during PCI, a combined CA injury was revealed. The most common lesions were found in the right coronary artery (RCA), left anterior descending coronary artery (LAD) and left circumflex artery (LCX). A combined lesion of these major arteries was determined in 8 cases (25%). The most frequently involved CA in atherosclerotic lesions was LAD in 89% of cases, followed by RCA - 59,3% and LCX-(48,1%). The left main coronary artery was rarely affected- involved in only 11% of such patients.

Galectin-3 levels of 23.48 - 41.42 ng/ml in obese STEMI patients were associated with an increased severity of the damage in the affected vessels indicated by high Gensini scores. A strong correlation between galectin-3 concentration and Gensini scale ($r=0.72$; $p<0.05$) was observed, with the number of affected CA ($r=0.69$; $p<0.05$) and the number of affected segments ($r=0.71$; $p<0.05$) in STEMI patients with obesity.

Conclusion. In obese patients who have STEMI, the increase of galectin-3 serum levels is suggestive of an increased severity of the coronary artery atherosclerotic damage.

PARETIC SCIATICA WITH SIGNIFICANT SPINAL STENOSIS: CONSERVATIVE TREATMENT

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Relevance. The central spinal stenosis syndrome is classified in the Lumbo - Sciatica syndromes of mechanical etiology (LSS) and is defined as a narrowing of the sagittal diameter of the spinal canal of less than 12 mm spinal diameter of less than 10mm is considered a significant stenosis and is usually accompanied by clinical symptoms. Internationally, surgical treatment (laminectomy) is suggested for PS. In this paper, we present a series of 10 patients with central spinal stenosis and PS who has undergone successful conservative treatment.

Aim of the research. This study aims to to highlight the benefits of conservative treatment as an alternative approach to surgery

Methods and Materials. Our study spanned the period from January 2019 to August 2019 and involved a total of 10 outpatients (6 male, 4 female) suffering from PS with significant spinal stenosis. The mean age of the patients was 60 and they were all suffering from this condition for at least five years. Most of them have previously been advised to undergo surgery and they had used various medications (NSAIDs, Opioids etc) to alleviate the accompanying Chronic Pain (CP). In the curse of the disease they have suffered recurrent crises of LSS, which were treated with conservative treatment and bedding. Prior to referring to our clinic they have experienced progressively worsening sciatica, which has evolved into paretic sciatica despite the use of NSAIDs, cortisone and adjuvant analgesics (pregabalin, tramadol and codeine), which had to be stopped due to their inefficiency and many side effects.

Results. In the clinical examination inability to walk and stand upright for more than 2 minutes, foot drop and gait retreat were observed. The SLR was positive at 70o without sensory disturbances. The MRI showed multiple central spinal stenoses with sagittal diameter of 6mm (NV> 12mm) at the level of L3-L4-LS-I1. The EMG was compatible with LS rediculopathy and L1 participation. The patient received corticosteroid injections in the vertebral foramina and manipulation. At the same time the patient was receiving a daily dose of Palmitoethynolamide (PEA), an endogenous fatty acid amide intended for the treatment of chronic and neuropathic pain. Immediate relief of pain and paresis was observed and recovery of physiological function, having been stable for the last 3 months was achieved.

Conclusions. This case series indicates the efficacy of conservative treatment of significant vertebral stenosis associated PS. More specifically, it seems that conservative management is the optimal solution for patients with PS who cannot undergo surgery.