Conclusion. Sonography is a suitable method for diagnosis of subacute thyroiditis. It has both a high specificity and high sensitivity. It can be successfully used as a navigation tool for intrathyroid steroid injection. Sonography is a highly informative method for evaluating the treatment dynamic, as it shows the changes in the lesions’ and the thyroid sizes and structure. The use of colour Doppler duplex scan is helpful in monitoring the gland’s blood flow.

References:


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IMMUNE RESPONSE IN PATIENTS WITH CHRONIC HEART FAILURE DURING NON-SEVERE COMMUNITY-ACQUIRED PNEUMONIA BEFORE ANTIBACTERIAL TREATMENT PRESCRIPTION

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Introduction: Community-acquired pneumonia (CAP) is the leading cause of death due to infection, with approximately 90% of deaths due to pneumonia occurring in people aged >65 years in European countries [1]. Hospitalized patients with CAP are at an increased risk of developing or exacerbating cardiac disorders. One of the most frequent causes of non-cardiac death in patients with chronic heart failure (CHF) are lung diseases. The mechanism of action of pneumonia in concomitant heart failure is multifaceted. Acute infections can lead to decreased myocardial function (such as septic shock), increased oxygen consumption, tachycardia, and circulatory disorders, which can lead to increased heart rate and the risk of heart failure [2]. Investigation of pro- and anti-inflammatory cytokines (TNF-α, IL-1, IL-6, IL-8, IL-4) levels, expands the possibilities of recognizing the course of bacterial CAP bacterial in patients, can help to determine the nature of inflammatory disorders and predict possible further complications of the disease [3, 4].

Aim of study: To study the immune response in hospitalized patients with CAP and CHF before antibacterial therapy.
Methods: Immune response parameters were evaluated using blood samples from patients with mild-moderate CAP (interleukin (IL)-1β, IL-8, IL-10, tumour necrosis factor (TNF)–α, C-reactive protein (CRP)). Within 24 hours of CAP diagnosis leukocyte levels were measured before starting antibacterial therapy. The study consisted of 2 patient groups: patients with CAP and CHF (84 person) – divided into CHF functional classes (f.cl) (1f.cl - 45 patients, 2f.cl – 25 patients, 3f.cl – patients, 4 f.cl- 6 patients) and patients with CAP without CHF (17 person).

Results: Prolinflammatory cytokine IL-1β levels were higher in patients without CHF compared to CHF I-IV f.cl. which were statistically insignificant: (2.29±0.5 (17 patients) vs 2.17±0.28 (45 patients) vs 2.83±0.7 (25 patients) vs 1.9±0.7 (8 patients) vs 1.6±0.6 (6 patients), p>0.05). TNF–α cytokine levels were significantly higher in CAP patients with II f.cl CHF compared to patients with CAP and III-IV f.cl CHF (4.7±1.2 vs 1.76±0.5 vs 0.77±0.1, p<0.05) and insignificantly higher in patients with CHF I f.cl and patients without CHF. Levels of IL-8 associated with CHF adverse outcome in patients with CAP and III CHF f.cl were significantly lower than in groups of patients without CHF and with CHF I-II f.cl (13.4±2 vs 45.8±15.6 vs 23±4.7 vs 37.8±12.9, p<0.05), level of IL-8 was lower in all other groups of patients in the study (15.2±1.9). Anti-inflammatory cytokine IL-10 profile had shown significantly lower levels in CAP patient groups with concomitant CHF IV f.cl in comparison to groups without CHF or CHF I-III f.cl (5.5±0.3 vs 12.2±1.5 and 11.1±1.4 vs 11.6±2.3, p<0.05). There were no significant differences in levels of CRP in CAP patients with IV f.cl compared to groups without CHF or CHF I-III f.cl they were higher (18.8±3.2 vs 16.3±1.7 vs 14.2±1.5 vs 15.7±1.3 vs 16.7±3.5, p>0.05). A similar situation was observed with leukocyte levels: insignificantly higher levels of leukocytes were found in CAP patients with CHF III-IV f.cl compared to CAP patients without CHF or I-II f.cl of CHF (10.2±2.2 and 9.5±1.7 vs 7.05±0.5 vs 8±0.7 and 6.9±0.4, p>0.05).

Conclusion: High concentrations of cytokines can reflect pneumonia severity and predict possible CHF exacerbation in elderly patients. The older patients have the significant cell immunity activation with inhibition of humoral immune response. Such immunodeficiency is associated with poor prognosis and potentially more severe CAP course with increased risk of complications and chronic diseases exacerbations, including CHF. This can result in increased co-morbidity index due to age, suppressed immune response or prolongation of cytokine response in older patients.

References:


