

units or from outside the hospital with the aim of being diagnosed, treated and stabilized. It is essential for young residents to get autonomy in performing invasive techniques such as hepatic, pleural, cutaneous and subcutaneous fat biopsies, thoracentesis, paracentesis, lumbar punctures, echocardiograms, articular infiltrations, and central venous access. These skills are essential in the first approach of some patients, helping internists not to exclusively depend on other specialties. The authors present the numbers related to the activity performed during four months in an Internal Medicine ward of a Central Hospital, in order to emphasize the different diagnostic and treatment procedures. **Methods:** Retrospective analysis of all patients admitted from January first to April 30 of 2013 in an Internal Medicine ward. **Results:** During the first 4 months of 2013, five hundred and sixty nine patients were admitted. The following invasive procedures were performed by seven residents: twenty-seven thoracentesis (with diagnostic and therapeutic aim), three thoracic drains, twenty-two paracentesis (also with diagnostic and therapeutic aim), thirty-four central catheters, fifteen lumbar punctures, seven orotracheal intubations, eight cutaneous biopsies, seven subcutaneous fat biopsies, two bone marrow biopsies, five percutaneous liver biopsies, two pleural biopsies, sixteen intra-articular injections and arthrocentesis and fifty-three echocardiograms. **Conclusions:** This analysis emphasizes the growth in autonomy in Internal Medicine, depending so far less from other specialties to perform invasive procedures. Also, as some procedures are nowadays less common, specialization in specific techniques should be promoted, to improve skills and therefore guarantee a better outcome.

doi:10.1016/j.ejim.2013.08.672

ID: 737

Sarcoidosis — The eternal diagnostic challenge

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Sarcoidosis is a systemic granulomatous of unknown etiology which affects mostly young adults. The clinical presentation is variable but nearly 90% have pulmonary involvement. Diagnosis is based on clinical and radiological presentation, confirmed by the presence of noncaseating granulomas and the exclusion of other granulomatous diseases. Evolution is also variable, from acute outset with spontaneous resolution to cronical disease, namely pulmonary fibrosis. **Clinical case:** Man, 64 years old, smoker in the past, with severe coronary artery disease, heart failure, type 2 diabetes mellitus, arterial hypertension, dyslipidemia. Hospitalized for recurrent atypical chest pain. Chest radiography — bilateral diffuse micronodular pattern. CT scan: micronodular pattern in upper lung fields, mediastinal and hilar lymphadenopathy; clinical analysis with no significant changes, serum calcium and urinary ACE and ADA normal; HIV negative. Intradermal reaction anergic, fiberoptic bronchoscopy without lesions, sputum and bronchoalveolar lavage (BAL): bacteriological and mycobacteriological (direct and culture) negative; BAL: CD4/CD8 lymphocyte ratio: 2.3; cytology negative for neoplastic cells, bronchial biopsies with nonspecific alterations. Normal spirometry and plethysmography; slight decrease in diffusion capacity of carbon monoxide. Transbronchial biopsies: aggregates of histiocytic cell type granuloma, giant cells multinucleated, compatible with sarcoidosis. Ophthalmic examination without significant changes. Started corticosteroid therapy with good clinical response. **Comments:** The diagnosis of Sarcoidosis remains a challenge for the doctor, being fundamental the exclusion of other diseases, including tuberculosis. The treatment is

based on corticosteroid therapy in selected patients depending on the organ involvement, with difficult monitoring and uncertain prognosis.

doi:10.1016/j.ejim.2013.08.673

ID: 753

Effects of short term lifestyle changes in metabolic syndrome — Associated inflammatory state

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The weight loss associated with long-term lifestyle changes has important favorable effect on metabolic syndrome (MetS) characteristics; unfortunately, the relapsing rate is high and the weight fluctuations could increase the cardiovascular and metabolic risk. **Objective:** Present study assessed the effect of a month-long supervised lifestyle change (SLC) program, presented by physiotherapist and dietitian, without weight loss on the MetS-associated inflammatory status. **Methods:** The levels of cytokines, growth factors, high-sensitivity C-reactive protein (hsCRP), blood lipids, leptin, and adiponectin were measured. Variations and gender differences were analyzed before and after the SLC program, and analyzed 2 months later at follow-up. **Results:** At follow-up, the interleukin-4 (IL-4) and high-density lipoprotein (HDL) cholesterol levels increased, whereas the leptin, vascular endothelial growth factor (VEGF), and hsCRP levels decreased from their baseline levels. **Conclusions:** Our data indicated that even a one month supervised program without weight loss could have anti-inflammatory and vasoprotective effects, as reflected by the variation in the levels of circulatory cytokines and adipocytokines (e.g., IL-1 β , IL-2, IL-6, IL-8, MCP-1, hsCRP, and adiponectin) at the end of an SLC program. Also, the presence of adipocytokine variations (increased IL-4; decreased VEGF, hsCRP, and leptin levels), that were present after two months without any medical supervision, could serve as useful parameters for appreciating a favorable longer term response to a lifestyle change program. A gender-related analysis showed that some markers varied significantly differently among women (EGF, leptin and adiponectin) than among men (VEGF, IL4 and IFN γ), sustaining the possibility for the elaboration of gender-related protocols to more specifically evaluate the effects of a SLC program.

doi:10.1016/j.ejim.2013.08.674

ID: 765

Long term safety of beta-lactam administration in patients with self-reported allergy and negative skin test

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Background: Approximately 10% of patients declare to be allergic to beta-lactam yet only 10% of them have demonstrable allergy. In patients who were clinically suspected as having beta-lactam allergy and had negative skin tests, the rates of long term subsequent exposures are not clear. **Objective:** We aimed to determine the rate of established beta-lactam allergy and long term outcome among

patients referred to an allergy clinic due to suspected beta lactam allergy. **Methods:** The data of all patients referred to the allergy clinic in Meir Medical Center due to suspected beta-lactam allergy between 2008 and 2011, consecutively, were reviewed. After an allergist assessment, patients underwent skin prick and intradermal testing (IDT) with major and minor penicillin determinants. Those with negative skin tests were administered an oral challenge with the suspected drug. Part of the patients was advised to complete 5 day treatment course. Two to five years later, a follow-up was conducted to assess the outcomes of further beta-lactam administration (using medical records and phone-call conversations). **Results:** Out of 222 patients referred to the clinic, 204 underwent skin-tests. Only 35 patients (17.1%) with self-reported beta-lactam allergy had established allergy by either positive skin tests or oral challenge. One hundred and sixty patients were available to follow-up (5 patients passed away, 39 could not be reached on the phone). Of them, 133 had negative skin test or challenge and 27 were defined as allergic at the initial evaluation. Of the 133 patients with negative skin test and/or challenge, 69 received at least one subsequent full course of beta-lactam and 19 at least two full courses. Two of them (2.9%) developed delayed, mild rash. Analysis of the clinical histories showed that patients with a well-defined history of allergy and a history of anaphylaxis were more likely to have a positive test compared to patients with vague histories. No clinical or statistically significant difference was found between allergic and non-allergic regarding age, gender and the presumed offending drug. **Conclusion:** Comparable to previously published studies, 17.1% of our patients presenting with a history of penicillin allergy have positive skin test or challenge. Once the allergy is excluded in test and one dose challenge, administration of full course of beta-lactam at home seems to be a safe procedure. Thus, enabling the use of beta-lactam as first-line treatment when necessary without deviations from standards of care and significantly reduce the use of expensive agents.

doi:10.1016/j.ejim.2013.08.675

ID: 770

Pleural effusion – What do we find in internal medicine

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Objective: Pleural effusion is an entity consisting of the excess fluid in the pleural cavity. It is divided into exudate and transudate as a result of local changes in the first or in the case of systemic changes in the case of the second. The indication for performing a thoracentesis is a newly discovered pleural effusion. Nonetheless it is legit not to do it in cases of strongly presumed etiology, or when there is only a small amount of liquid, which makes it technically difficult. In this paper we try to understand what is our reality in the service in terms of how much thoracentesis we do, and what etiology is responsible for its development. **Methods:** Retrospective analysis of clinical data of patients hospitalized at our infirmary of Internal Medicine, for the period between 1 January and 31 December 2012. We included all patients who had showed the presence of pleural effusion in a diagnosis exam, either X-ray or CT scan. For the ones we did not performed thoracentesis the etiology was given taking into account the clinical evaluation of our patients, the medical history and the positive or negative response to antibiotic therapy and diuretic therapy. **Results:** It was found that 11.96% of the total patients admitted to the infirmary had some kind of pleural effusion present. Of this 57.7% were males and 42.3% were females. The pleural effusion was bilateral in 56.42%; at the right side in 27.56% and left in 16.02%. Thoracentesis was performed in 9.62% of the

patients who had pleural effusions. In this the laboratory testing done was compatible to transudate in 6.7% and to exudate in 93.3%. The etiology of the exudate was in 57.1% of the cases neoplastic; parapneumonic in 14.3%; unknown etiology in 14.3 %; tuberculosis in 7.15%; and traumatic lesion that infected in 7.15%. Of the 90.38% who did not undergo thoracentesis the presumed cause was in 81.6% due to heart failure; in 7.8% due to a known neoplastic disorder; 7.8% parapneumonic; 1.4% due to tuberculosis; 1.4% due to chronic hepatitis; and 1.4% due to sepsis. Of the total of patients with pleural effusion 7.7% died at the infirmary. **Conclusion:** Pleural effusion is a frequent finding and in most cases it is not required to perform a thoracentesis to know the etiology. The great cause of pleural effusion is heart failure with its various etiologies. We also concluded that in most cases if we are in the presence of a bilateral pleural effusion the cause will be heart failure.

doi:10.1016/j.ejim.2013.08.676

ID: 771

Risk of malnutrition and other co-morbidities

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Malnutrition is caused by multiple pathologies and risk factors. It is characterized by a discrepancy between nutritional intake and need, with unintentional weight loss. In hospitalized patients, malnutrition may relate to a longer hospital stay, higher mortality, risks and costs. **Objective:** Identify co-morbidities associated with risk of malnutrition in hospitalized patients in a Department of Medicine (DoM). **Methods:** Data was collected in a single day, through research of clinical processes of the patients hospitalized in the DoM. The authors evaluated the following data: gender, chronic bedridden (CB), enteral feeding by naso-gastric tube (EF), pressure ulcers (PU), chronic indwelling catheters (IC) and diagnosed Heart Failure (HF). It also assessed some variables present in the NRS (nutritional risk score) scale, such as age, Chronic obstructive pulmonary disease (COPD), Diabetes Mellitus (DM), Body Mass Index (BMI) and history of neoplasia. The risk of malnutrition was assessed by NRS scale. A score >2 is associated with risk of malnutrition. The collected data was treated in a statistical program. **Results:** We excluded 4 patients because of inappropriate records. Of the 89 included patients, 35 (39%) were at risk of malnutrition. CB (p-value 0.016), HF (p-value 0.017), EF (p-value 0.003) and CI (p-value 0.004) were predisposing factors for risk of malnutrition. As expected, most variables used in the NRS scale (age, COPD, DM and BMI) were predisposing factors for risk of malnutrition. **Conclusions:** Despite the high frequency of patients at risk of malnutrition and its implications, the nutritional status of hospitalized patients is not always assessed in the clinical practice. In addition to valuable tools such as NRS scale, it is important to remember other co-morbidities that contribute to the nutritional status.

doi:10.1016/j.ejim.2013.08.677

ID: 772

Guillain-Barré syndrome – Two clinical cases, different evolutions of the same condition

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