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BOOK OF ABSTRACTS

CONTENT

ORAL PRESENTATIONS

POSTERS

ORAL PRESENTATIONS

Non-invasive diagnostics of liver fibrosis in patients with type 2 diabetes in daily practice

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Introduction: The amount of liver fibrosis represents the most important prognostic factor in NAFLD. We aimed to assess the possibilities of non-invasive staging of liver fibrosis in difficult to examine patients.

Methods: Consecutive patients with type 2 diabetes (DM2) with late complications were examined (basic laboratory examination, anthropometric parameters, abdominal ultrasound with point-shear wave elastography). Non-invasive scores of liver fibrosis (APRI, FIB-4, BARD, NAFLD fibrosis score) were calculated.

Results: We examined 129 patients (mean age 68±10,1 years, BMI 30,1±4,58, waist circumference 110±11.1 cm, all had metabolic syndrome). Steatosis was sonographically present in 70% pts, point-shear-wave elastography measurement meeting quality criteria was possible in 97 (75%) pts, not possible in 32 (25%) pts. Up to 15% of the patients from the reliably measurable group had liver stiffness values in a range of fibrosis, almost 10% in the range of advanced fibrosis/cirrhosis (F3/4). The reliability of liver stiffness measurement was associated with lower BMI, waist circumference and thoracic wall thickness. In the group of patients which could not have been measured reliably the results of non-invasive scores were contradictory and were therefore of no help.

Discussion/Conclusion: Type 2 diabetic patients with late complications represent a subgroup of patients with significant prevalence of advanced liver fibrosis/cirrhosis. In a substantial amount of these patients elastography measurement is unreliable and basic non-invasive scoring systems are of no help.

Funding: Scientific grant of KNL VR 170307.

Keywords: type 2 diabetes mellitus, non-alcoholic fatty liver disease, liver fibrosis

"A strange chest pain": a lung abscess unusual presentation in an immunocompetent woman

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Background: Lung abscess is a pathological entity which consists of a pulmonary pus collection resulting from of an infection, with the formation of cavities inside the parenchyma. It occurs in most cases to patients affected by some common conditions, such as immunodeficiency disorders or dysphagia due to different causes (intubation, cerebrovascular events, alcohol and drugs assumption and abuse). The clinical suspicion of lung abscess is higher when in a patient with those underlying conditions symptoms as cough, fever, night sweats compare.

Clinical case: A 49 years old woman, lawyer and teacher, referred to the ER complaining about chest pain localized to the right hemithorax with irradiation to the right shoulder. Apyretic at the moment of the access, negative physical examination. Classified as parietal pain and discharged at home after performing negative chest X-ray, normal EKG and laboratory exams, she came back two days later because of increasing right hemithorax pain not responsive to acetaminophen or ibuprofen administration, with irradiation to the right shoulder and also to the neck. She reported a not specified viral syndrome during the previous week and mild physical efforts during the same period. In her anamnesis allergic rhinitis, hypothyroidism in substitutive treatment, mono-annessiectomy and bowel resection due to a teratoma and one episode of renal colic due to kidney stones.

Hospitalised, she developed fever and increasing inflammation indexes at the lab exams. After starting of empiric antibiotic treatment with i.m. ceftriaxone, bones X-rays were performed (right shoulder and cervical-thoracic spine), with negative results. Considering the hypothesis of an endocarditis, also an echocardiography had been performed, showing minimal mitral regurgitation, in absence of any vegetation or other valvular affection, in a normal systolic and diastolic function. From one of the blood cultures performed during fever peaks, isolation of S. pneumoniae and shift of the antibiotic therapy to e.v. piperacillin-tazobactam according to the antibiogram. The chest CT scan performed showed a large cavitation at the medium pulmonary lobe, with hypodense fluid content, consistent with an infective-abscess disease. No surgical indications were given from the thoracic surgery, after the negative result of the bronchoalveolar lavage and the cultural and cytological exams. Every test assessed in order to check any eventual immune-impairment has given negative results.

After 21 days of antibiotic therapy (shift at the discharge to oral moxifloxacin), the repetition of the chest CT scan showed an almost complete resolution of the infective process and the patient referred an improving of her coenaesthesia.

Conclusion: Although lung abscesses are usually suspected in patients with predisposing conditions and typical symptoms presentation and laboratory results, the diagnostic doubt has to be placed also facing cases as this presented: a hemithorax pain, especially when accompanied by fever, in a young and otherwise healthy woman with recent history of viral syndromes or respiratory affection, also with negativity of the first lab tests and chest X-ray could reveal an underlying lung abscess of great dimensions.

Literature:
Yazbeck MF et al. Lung abscess: update on microbiology and management *Am J Ther.* 2014 21(3) 217–21
Marra A et al. Management of lung abscess *Zentralbl Chir.* 2015 140 Suppl 1:S47–53

Keywords: lung abscess, chest pain, infection, respiratory disease

Myocardial infarction in population with high anxiety in Russia/Siberia: gender features. Based on WHO program Monica-psychosocial

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Objective: To explore a gender effect on the risk of hypertension in the population aged 25-64 years with high anxiety traits in Russia / Siberia over 16 years of follow-up.

Methods: Under the third screening of the WHO program MONICA-psychosocial a random representative sample of the population aged 25–64y were surveyed in Novosibirsk in 1994 (n=1527, 43% males). Anxiety traits were measured at the baseline examination by means of Spilberger's test. New onset MI in women (n=15) and men (n=30) were identified from 1994 to 2010.

Results: The risk of MI in women with high anxiety was 4.19-fold higher and in men HR was 3.7-fold higher over 16 years of follow-up (p for all <0.05). The risk of MI was the highest in women with high anxiety in older age group 55-64 years (HR = 5.95) and it was greater than in men of the same age group (HR = 3.56).

Conclusion: Anxiety is a significant psychosocial risk factor for CHD. The risk over 16-year period of MI was higher in women.

Keywords: myocardial infarction, gender differences, population, risk, anxiety traits

Autoimmune thyroid disorders – An update / Indian Journal of Clinical Biochemistry, 2005, 20 (1) 9–17

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Autoimmune thyroid disease (AITD), a common organ specific autoimmune disorder is seen mostly in women between 30–50 yrs of age. Thyroid autoimmunity can cause several forms of thyroiditis ranging from hypothyroidism (Hashimoto's thyroiditis) to hyperthyroidism (Graves' Disease).

Thyroid Peroxidase (TPO) antibodies: TPO is the key thyroid enzyme catalyzing both the iodination and coupling reaction for the synthesis of thyroid hormone. Anti-TPO autoantibodies are found in over 90% of patients with autoimmune hypothyroidism and Graves' disease.

Thyroglobulin (TG) Antibodies: The sequence of human TG has-been determined. When TSH stimulates the thyroid cell, TG is endocytosed and hydrolyzed in lysosome releasing T3 & T4. TSH regulates the cell surface expression of TPO and TG altering the mRNA transcription of these two proteins, possibly at the gene promoter level.

Clinical features: Patients with Hashimoto's thyroiditis may present a goiter which varies from small to large in size. It is usually firm and painless often with an irregular boss elated surface. The goiter in case of GD is diffusely enlarged and firm in consistency. Increased blood flow may be manifested by a thrill or bruit.

Diagnosis of AITD: AITD is detected most easily by measuring circulating antibodies against TPO & TG. A negative test for both the antibodies virtually excludes AITD, as 98% of patients are positive for either antibody. TPO Ab is more specific and sensitive than TG Ab in diagnosis of AH. Elevated TSH with TPO antibodies is the gold standard for diagnosis of chronic HT (Hashimoto's thyroiditis). TSH Abs that stimulates the TSH-R in GD is measured to predict neonatal thyrotoxicosis. They can be measured by radio receptor assays or bioassays.

Treatment: Patients with Autoimmune hypothyroidism and TSHR-blocking antibodies enter remission after T 4 treatment. Goiter size in HT reduces by around a third over a 2-year period and thyroid autoantibodies can remain elevated or decline with T 4 supplementation. Treatment with antithyroid drugs (carbimazole, methimazole, propylthiouracil) for Graves' disease leads to a decline in TSAbs and other thyroid antibodies. There is also a decline in severity of thyroiditis as well as other immunologic changes. Propranolol or other long acting beta-blockers, such as atenolol may be useful to control adrenergic symptoms especially in early stages before antithyroid drugs take effect. Radioiodine causes progressive destruction of thyroid cells and can be used as initial treatment or for relapses after a trial of antithyroid drugs.

Conclusion: AITD is the result of a complex interaction between genetic and environmental factors. The disease results when the autoreactive lymphocytes escape tolerance or ignorance. Both cell mediated and humoral immune responses contribute to tissue injury in autoimmune hypothyroidism. In Graves' disease, production of TSAbs leads to hyperthyroidism. The multistep development of disease suggests that it will be possible to restore normal tolerance and treat Graves' disease immunologically. Current approaches to medical therapeutic intervention in AITD include the use of monoclonal antibodies to selectively deplete specific T lymphocytes subsets and blocking of the T-Cell receptor MHC interaction, by vaccination with chemically altered auto antigens.

Keywords: Autoimmune Thyroid Disease, Thyroid Peroxidase Antibodies, Thyroglobulin Antibodies, TSHR antibodies

Is per-oral iron treatment in systolic heart failure useful?

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Objective: Sideropenia/anaemia is frequent comorbidity in systolic heart failure (SHF). Previous studies with i.v. iron treatment confirmed improvement of symptoms for these patients (1,2). There is still little knowledge of the effects of the oral form (1,2).

Aim: Is it possible to improve symptoms of SHF patients with absolute iron deficiency by per-oral treatment of sideropenia/anaemia with iron supplementation (folate and B_{12} vitamin included too)?

Patients and Methods: 29 patients (males: 16/29, 55 %), mean age: 77.3 ys with SHF (mean ejection fraction, EF: 33 %), hospitalized last 2–3 ys for acute HF and sideropenia/anaemia was here found. SHF diagnosed clinically, confirmed by echocardiography (EF ≤ 40 %), by serum NT-proBNP (≥600 ng/l), and by SHF treatment effect. All patients had treatment of systolic HF according to guidelines. Absolute sideropenia: iron serum level < 12.5 μmol/l in males, < 10.7 μmol/l in females, by serum ferritin level < 21.8 μg/l in males or < 20.6 μg/l in females, by transferrin saturation < 0.15. We examined also serum levels of folate and vitamin B_{12}. Anaemia was confirmed by haemoglobin (≤ 120 g/l in females, ≤ 130 g/l in males). NYHA classification of HF was used. Sideropenia/anaemia was treated by combination of ferrosi sulfas 100 mg, acidum folicum 5 mg, cyanocobalaminum 0.01 mg, acidum ascorbicum 100 mg / three times a day (Ferro-Folgamma®). During the treatment parameters of sideropenia/anaemia were followed, also NYHA class, and serum levels of NTproBNP. Frequencies and percentages were calculated for categorical data and the simple mean, standard deviation (SD) and 95% confidence interval (CI) for continuous ones. Changes and associations of monitored parameters were analysed by chi-square and by ANOVA test, where the significance level of 0.05 was used as a threshold.

Results: Patient's characteristics: hypertension (28 from 29 patients), dyslipidemia (20/29), overweight/obesity (12/29), diabetes (10/29), smokers (8/29), coronary artery disease (24/29), arrhythmias (13/29), chronic kidney disease (18/29), chronic obstructive pulmonary disease (12/29), depression (7/29). Serum levels linearly improved with longer treatment time for iron ($p<0.0001$), ferritin ($p<0.0001$), haemoglobin ($p<0.0001$), B_{12} level ($p<0.0001$) and folate ($p=0.0369$) and linearly decreased for creatinine ($p=0.0007$) and for NT-proBNP ($p=0.0003$). Sideropenia was inversely associated with high NT-proBNP, exhibiting significant improvement over the time. Treatment brought continuous NYHA class improvements: class III patients (13, before the treatment) completely disappeared in favour of class I (11) and class II (18) patients at the end of the observation.

Conclusion: Per-oral treatment of iron/folate/vitamin B_{12} (3–5 months) improved symptoms and NYHA and NT-proBNP parameters of SHF patients. No adverse symptoms of this treatment were found.

Keywords: heart failure, sideropenia, treatment

Literature:

1. Murin J, Pernický M. Je železo dôležité u srdcového zlyhávania? Vnitř Lék 2015, 61(12, Suppl S): 5S50-5S55
2. Fitzsimons S, Doughty RN. Iron deficiency in patients with Heart failure. Eur Heart J – Cardiovasc Pharmacol 2015, 1:58–64

Brief intervention in smoking cessation, available smoking cessation medication, and financial incentives for smoking cessation medication in Europe

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Aim: Smoking is the most important health risk factor, being responsible for nearly 700,000 deaths in the European Union every year. Half of the smokers die prematurely. Smoking stays the main preventable cause of mortality in Europe today. Brief intervention has been proven effective, and should be an integral part of the daily practice of every health professional. As the brief intervention raises the awareness, changes the attitudes and behaviour, adequate medication increases the quit rate.

Method: The method of Brief Intervention (BI) represents a short recommended tool for intervening smoking clients. BI will be presented as well as the most common obstacles of this technique. The efficacy of the treatment of tobacco dependency increases with smoking cessation medication provided.

Results: The available smoking cessation medication with its regional limitations as well as local financial incentives across the whole Europe (UK, France, Canary Islands, Czech Republic, Romania) will be presented.

Conclusion: The Brief Intervention success is multiplied up to four times by prescribed medication to quit smoking. The use of the smoking cessation medication raises with the financial incentives available. This involves all three major stakeholders: the treating physician, the patient and the insurance companies.

Literature:

Prochaska, J. O. and DiClemente, C. C. Stages and processes of selfchange of smoking: Toward an integrative model of change. Journal of Consulting and Clinical Psychology 51(3): 390-395, 1983.
Guide to clinical preventive services. Report of the U.S. Preventive Services Task Force. Baltimore, Williams and Wilkins, 1989.
U.S. Department of Health and Human Services. The Health Benefits of Smoking Cessation: A report of the Surgeon General. Rockville, MD: US Department for Health and Human Services, 1990.
Doll R, Peto R, Boreham J, Sutherland I. Mortality in relation to smoking: 50 years observations on male British doctors. BMJ. 2004; 328: 1519.
DIRECTIVE 2014/40/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 https://ec.europa.eu/health//sites/health/files/tobacco/docs/dir_201440_en.pdf

Keywords: smoking cessation, brief intervention, financial incentives, tobacco, quit rate

Měření krevního tlaku u specifické populace

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Cíl: Po mnoho let zjišťujme při měření krevního tlaku (TK) v rámci preventivních prohlídek sportovců nadnormativní systolický TKs na paži, hlavně u sportovců silových disciplín. „Pažní TK" se významně liší od tlaku měřeného na zápěstí. Naše vysvětlení se týká morfologického složení měkké tkáně paže, přes kterou se TK měří, což platí pro účastníky silových sportů. Zjištěný fakt jsme již publikovali (Šrámek, Kreuter 2012). Další měření měla naše zjištění potvrdit na širším vzorku specifické populace.

Metoda: Měřili jsme TK na nedominantní paži (HK) oscilometrickou metodou a srovnávali s hodnotami naměřenými na zápěstí identické HK oscilometrickou metodou. Dále jsme odhadovali hmotnost paže (ATH) při použití bioimpedanční analýzy. Na měřené paži jsme měřili obvod paže v nejširším místě. Skupinu tvořilo 351 rekreačních i aktivních sportovců obého pohlaví. Věk 20 – 40 let, váha 75 (SD 15) kg, výška 177 (SD 16) cm

Výsledky: Průměrný systolický TK (TKs) naměřený na nedominantní paži: 134 mmHg (SD 15, median 133) diastolický (TKd) 77 mmHg (SD 9, median 77) min 101 mmHg, max 198 mmHg. Na zápěstí identické HK oscilometrickou metodou průměr TKs /TKd 123/78 mmHg, TKs min – max : 100 – 166 mmHg, TKd 64 -116 mmHg. Ani jedna s hodnot TKs, TKd nekorelovala významně s ATH nedominantní paže ani s obvodem paže (průměr 31,9 cm). Ani pokud jsme skupinu rozdělili: $TKs_{paže} > 140$ (114 osob) a $TKs_{paže} < 140$ (222 osob) závislost ATH na TK LHK se neprokázala. Osob s $TKs_{zápěstí} > 140$ mmHg bylo 30, zatímco $TKs_{zápěstí} < 140$ mmHg bylo 307 osob. $TKd_{paže} > 90$ mmHg 25 osob $TKd_{paže} < 90$ mmHg 311osob, $TKd_{zápěstí} > 90$ mmHg 42 osob a $TKd_{zápěstí} < 90$ mmHg 294 osob.

Závěr: Prokázali jsme rozdíl v TKs při měření TK na paži oproti měření na zápěstí. 114 osob mělo systolickou hypertenzi (TKs > 140 mmHg) oproti zápěstnímu měření s 30ti hypertoniky, respektive. Jak tedy postupovat? Všem sportujícím „pažním hypertonikům „ provádět Holter TK měření nebo se spolehnout na zápěstní měřidlo, které kardiologové diskreditují pro nespolehlivost? Autor navrhuje kompromis.

Literatura:
Šrámek P, Kreuter J:Měření krevního tlaku a morfologická struktura paže. (Blood pressure measurement and morphologic arm structure) Via pract., 2012, 9(3): 127–133

Klíčová slova: krevní tlak, sportovci, oscilometrické měření

POSTERS

Investigation of quality of life and parameters of the clinico-biochemical spectrum in patients with AH and comorbid conditions

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Aim: The study of the socio-behavioral, instrumental and laboratory parameters and quality of life of patients with arterial hypertension (AH) and comorbid conditions.

Materials and methods: The study included 64 patients of both sexes, aged 30–69 let. Vse patients were divided into 3 groups: patients with hypertension (I group, n = 20, mean age 52.7 ± 9.9 years) with hypertension and diabetes 2 type (II group, n = 23, 58 ± 5.3 years), and hypertension with chronic obstructive pulmonary disease (COPD) and/or chronical bronchitis (CH) (III group, n = 21, 57 ± 7.2 years). Evaluated clinicoanamnestic indicators, resting heart rate, blood pressure measurement, echocardiography, biochemical blood analysis, as well as the quality of life of patients with the help of the international questionnaire EQ-5D-3L.

Results: It is noted that the combination of hypertension and COPD and/or CH is more common in women, and a BMI over 30 kg/m^2 proved to be typical for the majority of patients in the diabetes group and COPD and/or CH. The survey by questionnaire EQ-5D-3L showed that the decline in the quality of life in patients with hypertension and diabetes was mainly due to such items as "discomfort", "daily activities" and "anxiety/depression". In patients with concomitant COPD and/or CH maximum number of points was typed on the items responsible for the "mobility", "anxiety/depression". The combination of hypertension with diabetes and COPD and/or CH was accompanied by an increase in plasma creatinine concentrations, as well as more severe dyslipidemia.

Conclusions: Accompanying diabetes and COPD and/or CH contribute to the deterioration of patients with hypertension, characterized by a decrease in the quality of life of patients, increased plasma creatinine concentrations, as well as more severe dyslipidemia in patients with hypertension.

Keywords: Arterial hypertension, chronic obstructive pulmonary diseases, chronical bronchitis, diabetes, quality of life

Apathetic thyrotoxicosis – a rare presentation of autoimmune thyroiditis

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Case report: 84 years old woman, with a history of post-surgical resection of colon neoplasm, hypertension, permanent AF, ischemic heart disease, DM2, dyslipidemia. Admitted due to tiredness, asthenia, palpitations and pre-cordial discomfort. At physical examination she was: apathetic, with non-palpable thyroid, without exophthalmos and hyperthermia. High heart rate, normal blood pressure. Pulmonary auscultation: crackling in lower 2/3 bilaterally. Cardiac auscultation: arrhythmic. Peripheral edema ++. Analytically: anemia (Hb 11.3 g / dL), high pro-Bnp (13,692 pg / mL), negative troponin (<0.02 ng / mL). GSA (0,21) with hypoxemia (pO2 62mmHg, SpO2 87%). ECG: AF RVR. Chest radiography :> ICT, bilateral effusion. Elevated Ft3 (2.27 pg / mL), Ft4 (1.78 ng / dL) and suppressed TSH (0.39 mIU / L) were detected in the context of Hashimoto's Thyroiditis (Ac Anti-peroxidase – 384 IU / ml (+), Anti-Receptor 0.3 mIU / L Ac, Anti-Thyroglobulin Ac 55.8 IU / ml). Ultrasonography GI thyroid: "diffusely increased gland, with a hyperechogenic and heterogeneous structure, anechoic formations of cystic nature, in both lobes". The patient was treated with Thiamazol and Propanolol. Evolved with clinical improvement with the diuretic and antithyroid therapy. Discussion: Thyrotoxicosis refers to the syndrome resulting from excess serum thyroid hormones, which may or may not be secondary to hyperfuntion of the thyroid gland. Hyperthyroidism rarely develops as a consequence of the release of thyroid hormone stored during severe Hashimoto's thyroiditis. The term apathetic thyrotoxicosis is used to describe the elderly patient in whom the usual hyperkinetic presentation is replaced by apathy, asthenia and lack of interest. We present this case because of its rarity, and in order to emphasize the importance of a high clinical suspicion for the pathology of the thyroid, when approaching the elderly patient with multiple comorbidities, with acute decompensation of their underlying pathology.

Keywords: Apathetic thyrotoxicosis, Autoimmune thyroiditis, Thyrotoxicois in the elderly, Thyrotoxicosis

Iron deficiency anemia in an elderly women – a case of a gastroduodenitis due to parasitic infection

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Introduction: Iron deficiency anemia is thought to affect more than one billion people worldwide. This greater disease burden is due to both nutritional and infectious etiologies. Infectious diseases, particularly parasitic diseases, also lead to both extracorporeal iron loss and anemia of inflammation, which decreases bioavailability of iron to host tissues.

Case report: We present the case of a 67 years old women, with a clinical history of hypertensive heart disease and iron deficiency anemia due to digestive hemorrhage, was admitted to the internal medicine department due to aggravation of the anemia with Hb – 5.9 g / dl, without other relevant analytical changes. The upper digestive endoscopy revealed gastropathy of the antrum, erythematous duodenitis and multiple parasites on the intestinal and duodenal Histology compatible with gastroduodenitis associated with parasitic infection. The colonoscopy and abdominal ultrasound were normal. She was treated with blood transfusion, iron and Albendazole. She was asymptomatic at the time of discharge. Analytically on the output: Hb – 9.2gr / dl.

Discussion: the causes of anemia in the developing world are multifactorial and include nutritional deficiencies, extra-corporal blood loss, higher prevalence of hemoglobinopathies, and inflammation. Studies demonstrated that the role of anemia of inflammation in the pathogenesis of anemia in the developing world is underestimated, as it plays a central role in the context of infectious diseases prevalent in these regions. Though both iron deficiency anemia and anemia of inflammation ultimately lead to host tissue iron insufficiency, it is likely that health outcomes related to each differ. Soil-transmitted helminths (STH), which include hookworm, ascaris, and trichuris, are very common in our environment. The development of hookworm-related iron deficiency anemia depends on the level of an individual's iron stores, the intensity of infection, and the infecting species as *A. duodenale* causes a greater blood loss than *N. americans*. Hookworm is unique among helminths in that infection intensities tend to peak in adulthood. A hookworm burden of 40–160 worms (depending on the iron status of the host) is associated with iron deficiency anemia. Blood loss is caused predominantly by parasite release of coagulases, causing ongoing blood loss in the stool, rather than actual blood consumption by the parasite. The association between hookworm infection intensity and increasing age has serious implications for women. Iron-deficiency anemia resulting from chronic intestinal blood loss due to hookworm infection often causes long-term morbidity.

Keywords: Iron deficiency, anemia, parasitic diseases, helminthic infection

Pulmonary cryptococcosis in an immunocompetent patient

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Introduction: Pulmonary cryptococcosis is an infection caused by *Cryptococcus gattii* and *C. neoformans*, and is rare in immunocompetent individuals. Clinical manifestations vary from asymptomatic nodular disease to severe acute respiratory distress syndrome. The most common radiological presentation consists of single or multiple nodules, with or without cavitation, mainly in immunocompromised patients. Consolidation, mediastinal adenomegaly, and pleural effusion may also be present.

Case report: We present the case of a 45-year-old man, former smoker, admitted with cough, chest pain, nocturnal fever, weight loss, fatigue, anorexia and asthenia with 2 weeks of evolution. He denied excessive nocturnal sweating, hemoptysis, contact with birds, contact with people with Tuberculosis. At physical examination with a reasonable general condition, without respiratory distress, febrile (38.2ºC) without adenomegaly, respiratory murmur diminished at the level of the two upper thirds on the right. Analytically: PCR: 45.9, glycemia: 349mg / dl, HIV negative. Chest x-ray revealed heterogeneous opacity at the two upper thirds level of the right lung field. Thorax CT scan revealed condensation foci in the upper, middle and lower stages, sequential hyperdensities and sequelae, suggestive of a specific inflammatory / infectious process. Tuberculostatic and antibacterial drugs were empirically initiated, after bronchofibroscopy with bronchoalveolar lavage was performed. Direct bacteriological, mycological, mycobacteriological examination was negative. The cytological examination revealed numerous fungal structures consistent with cryptococcus. Fluconazole was immediately initiated with improvement.

Discussion: About 1/3 of immunocompetent patients with cryptococcosis are asymptomatic. The main manifestations in symptomatic patients are respiratory and / or constitutional. Radiological changes such as infiltrate (62%), nodules (38%), mass (19%), cavitary lesion (14%) and pleural effusion (3%) were described. Chest CT scan provides details for differential diagnosis and aids in invasive diagnostic programming. The differentiation between cryptococcosis and tuberculosis in countries with a high prevalence of tuberculosis is crucial for the success of the management of the patient. The diagnosis of cryptococcosis can be made by the direct investigation of the fungus in the expectoration, bronchoalveolar lavage, cerebrospinal fluid and in the histological sections, being confirmed by the culture of fungi in these materials. Fluconazole has been the initial treatment described. Amphotericin B, due to its toxicity, is reserved for cases of isolated pulmonary cryptococcosis without response to fluconazole, in the severely ill and in the central nervous system.

Keywords: pulmonary cryptococcosis, cryptococcosis

Renovascular hypertension: ten years of clinical, laboratory and imaging evolution of fibromuscular dysplasia with right renal artery stenosis, treated with medical and angioplasty approach

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Objectives / Introduction: Fibromuscular dysplasia (FMD) is a non-inflammatory disease affecting small and medium-sized arteries. The renal and extracranial carotid and vertebral arteries are most often involved. It affects the renal arteries in nearly 60%–75% cases. The primary clinical manifestation of renal FMD is hypertension. Medial fibroplasia represents the most common dysplastic lesion. We report a case of fibromuscular dysplasia with right renal artery stenosis, who initially presented with hypertension and renal insufficiency.

Methods / Results / Case report: 29 years old male, who presented with stage 3 hypertension at age 19. The initial laboratory findings showed transient mild microalbuminuria with normal serum urea and creatinine. Renal ultrasound showed a renal artery with closed stenosis, elevated systolic peak velocity of 4 m/s, tele diastolic velocity of 2 m/s, reduced resistance index (< 0,4) and elevated acceleration time (0,08). Renal magnetic resonance angiography (MRA) showed normal kidney morphology and topography, a pre-occlusive stenosis of the middle third of the renal artery, compatible with fibromuscular dysplasia. Involvement of other arterial sites were excluded. Since the diagnosis he was treated medically with adjusted dosage of irbesartan, hydrochlorothiazide and diltiazem, acetylsalicylic acid and rosuvastatin. To restore renal perfusion he underwent the first percutaneous transluminal renal angioplasty (PTRA) within 2 months after diagnosis **(**August/2008**)**. Duo to a hemodynamically significant 70% restenosis, and resistant hypertension, he underwent two more PTRA within 2 and 5 years after the first procedure. At the present date he has normal blood pressure values, normal renal function and other vascular risk factors are controlled. The patient still has a hemodynamically significant stenosis since the renal ultrasound showed elevated systolic peak velocity of 2.7 m/s, at the emergence of the right renal artery, but the resistance index and acceleration time were normal. Doppler parameters were normal in contralateral kidney. Renal MRA shows a significant stenosis of the right renal artery, with no significant atrophy on the ipsilateral kidney.

Conclusions / Literature / Discussion: Renal artery revascularization for the treatment of hemodynamically significant renal artery stenosis demonstrated a benefit on blood pressure value and renal function. In the present case the patient was treated with antihypertensive and antiplatelet agents, and also underwent percutaneous transluminal renal angioplasty (PTRA) in the first year of diagnosis, with the goal to normalize blood pressure and prevent progression to renal atrophy and insufficiency, with good results 10 years after diagnosis, since he has normal BP, normal renal function and no evidence of arteriolosclerosis in the contralateral kidney. Doppler parameters like acceleration time and resistance index can be used to monitor the progression of stenosis and its complications, as well as to highlight a possible sudden worsening which would indicate the need for a revascularization procedure to restore intrarenal hemodynamic and ultimately limiting neuro hormonal hyper activation.

Keywords: Fibromuscular dysplasia, Renal angioplasty, Renovascular hypertension, Renal artery stenosis, Hypertension

Comorbidity of somatic diseases and their risk factors in patients with CHD and diabetes

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The aim: Analyze of the specific features of CVD risk factors and the comorbidity of somatic diseases in patients with CHD and diabetes mellitus (DM) in comparison with control group (without DM).

Material and methods: 77 men and 68 women with angina pectoris of FC II-III were included in the study. Depending on the presence of diabetes and sex, patients were divided into 4 groups: I group – men with CHD and diabetes (n= 34), II group – women with CHD and diabetes (n= 36), III group – men with CHD without diabetes (n= 43), IV group – women with CHD without diabetes (n= 32). All patients were examined by questionnaires, clinical and instrumental methods to analyze risk factors and comorbidity of somatic diseases.

Results of the study: In men with CHD and DM, obesity was detected in 39.5% of cases, whereas in men with CHD without diabetes, its frequency was 1.5 times less – 23.5%. Among women, these indicators are more pronounced, while a similar trend is observed: 47% and 30%, respectively. The incidence of smoking among men with and without diabetes is comparable: 14.7% and 16.3%. Men with CHD and diabetes (29.4%) abuse alcohol 1.5 times more often than the CHD group without diabetes (16.3%).

In men with CHD and diabetes, the incidence of hypertension is 76.7%, which is associated with left ventricular hypertrophy (LVH) in 53% of cases. In men with CHD without diabetes, AH is detected in every second, which is combined with LVH in 39.5% of cases. In women, regardless of the presence of diabetes, the frequency of AH is high and comparable in both groups (in the CHD and DM group – 73%, in the CHD group without DM – 70%), which is combined with LVH in 63% and 47% of cases, respectively. Encephalopathy of vascular genesis in men with CHD and diabetes is diagnosed in 35% of cases, whereas in men with CHD without diabetes it is 2 times less common – 16.3%. Among women with CHD and diabetes, the incidence of encephalopathy is 41%, and in the group of women with CHD without diabetes, it is detected 2.5 times less often (16.6%). Among women with CHD and diabetes, a high incidence of chronic cholecystitis (41%) is also detected, in a group of women with CHD without diabetes chronic cholecystitis was diagnosed in 26.7% of cases. Among men there is a similar pattern. Thus, chronic cholecystitis was diagnosed in 29% of cases in patients with CHD and diabetes, and in the group with CHD without diabetes the frequency of chronic cholecystitis was 19.3%.

Thus, in patients with CHD in combination with diabetes is associated with a more pronounced frequency of obesity, hypertension, and left ventricular hypertrophy. In groups of men and women with CHD and diabetes, other chronic somatic diseases are detected 1.5-2 times more often compared with patients with CHD without diabetes. In women, all the analyzed indicators were higher in comparison with men with the presence of similar diseases.

Keywords: Diabetes, CHD, Risk factors, Comorbidity, Somatic diseases

Significance of the Neutrophil: Lymphocyte Ratio and other new inflammatory markers in patients with uncontrolled type 2 diabetes mellitus and patients with uncontrolled diabetes with microalbuminuria versus controlled patients and association of microalbuminuria.

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Type 2 diabetes is a risk factor for the development of cardiovascular disease and other complications of diabetes, such as microalbuminuria, a precursor stage of albuminuria in diabetic nephropathy. Studies have shown that there is a correlation between inflammatory mediators and diabetes mellitus (DM) complications.

Purpose: The aim of this study is to investigate the relationship between controlled and uncontrolled diabetes and diabetes with microalbuminuria and the neutrophil:lymphocyte ratio (NLR), red blood cell distribution width (RDW) and mean platelet volume (MPV) which may serve as simple and reliable indicators for predicting microalbuminuria.

Materials and methods: 53 patients with controlled DM (group A), 57 patients with uncontrolled DM (group B) and 58 patients with uncontrolled DM with microalbuminuria with\without other diabetic complications (group C), were included in this retrospective trial. Patients were classified into three groups according to glycated haemoglobin A1c and urine microalbumin:creatinine ratio levels. For all patients, NLR was calculated from the complete blood count, MPV and RDW levels were taken. Comparisons were made between the study groups using ANOVA, statistical significance and power required were 5% and 80%, respectively. The data was additionally analysed for correlations and optimum cut-off levels of inflammation markers.

Results: The results show a statistically significant difference between group A and group C (p value<0.001), with a difference of 0.7 in NLR, and between group B and C with a difference of 0.54 in NLR (p value=0.005) and 0.63 in RDW (p value=0.014). No significant difference was found between groups A and B. ROC curve analysis of NLR and RDW for microalbuminuria prediction found an area under curve of 0.675 for NLR and 0.614 for RDW. NLR cut-off point of 2.54 has 39.7% sensitivity, 78.8% specificity. RDW cut-off point of 14.44 has 37.9% sensitivity, 76% specificity.

Conclusions: NLR was found to be significantly higher only in diabetic patients who have microalbuminuria, compared to both controlled and uncontrolled diabetes, with no difference found between both of the latter. We conclude that the elevation of NLR is due to the presence of microalbuminuria, not the level of diabetes control. The use of NLR and RDW could be beneficial for patient follow-up and prediction of advancement.

Keywords: Diabetes mellitus, neutrophil:lymphocyte ratio(NLR),, microalbuminuria, MPV, RDW

Adherence to Treatment of Chronic Heart Failure: First Results of the LEVEL-CHF Registry

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Introduction: The prevalence of chronic cardiovascular diseases growths linearly with the advancements in the treatment of acute ones. Drugs which decrease mortality and improve patient's prognosis in chronic heart failure are mainly angiotensin converting enzyme inhibitors (ACE inhibitors), sartans, beta-blockers and mineralocorticoid receptor antagonists (MR antagonists). Currently we lack data if the patients do take their medication truly as prescribed. Non-compliance to medication may lead to more frequent decompensations and thus to higher mortality.

Objectives: To assess present level of adherence to medication in defined population of chronic heart failure patients by laboratory means. We searched for blood levels of above mentioned drug types.

Methods: Levels of heart failure medication were taken and checked in 105 outpatients. These patients had their drugs already prescribed at previous visits in the Heart Failure Ambulance of our university clinic. We labelled patients as adherent when they had all prescribed drugs detectable in blood. Non-adherent patients were those, whose drug blood levels were undetectable in at least one prescribed drug type.

Results: Our sample consisted of 105 patients (24 women, 81 men), mean age was 61, 34% were diabetics. Most common cause of heart failure was dilated cardiomyopathy (53 cases), followed by ischemic cardiomyopathy (39 cases). According to NYHA heart failure functional classification 23% of patients were in the first class, 56% in the second, 19% in the third and 1% in the fourth. In the group 82% of patients were adherent. 14% were non-adherent. 4% had a combination of medication that our laboratory currently can't measure.

Conclusion: The level of adherence in our centre for diagnostics and treatment of heart failure was high, better than we thought when we started our project. Percentage of adherent users is higher than in usually published data of patients with arterial hypertension using the same drugs.

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Keywords: Adherence, Chronic heart failure, Registry, Arterial hypertension

Definition of cardiovascular risk indices in patients with rheumatoid arthritis

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Objectives: To assess the total cardiovascular risk in patients with rheumatoid arthritis (RA) according to the SCORE scale.

Methods: The study included 63 RA patients aged 40-55 years. 39 (61.9%) of patients were seropositive for rheumatoid factor. The control group consists of 25 healthy individuals.

Results: Analysis of the obtained data showed that AH was detected in 46 patients, which was 73%. IHD occurred in 12 (19%) patients: stable angina in 9 (14.2%) patients, myocardial infarction suffered in 3 (4.8%) patients. The transferred stroke was detected in 2 (3.2%) patients. An increase in CRP> 10 mg / L was registered in 40 RA patients (p = 0.010). From the indicators of risk factors, smoking occurred in 35 patients (55.5%). The average level of total cholesterol did not differ from the level of indicators of healthy individuals. The results of the study of total cardiovascular risk on the SCORE scale in patients in the group of healthy individuals, low cardiovascular risk were detected in 92.0%, medium – in 8.0% of cases, moderate, high and very high risk were not revealed. In the group of patients with RA, low cardiovascular risk was 32.8%, middle – 30.5%, moderate – 27.1%, high – 5.1%.

Conclusions: In patients with RA, the determination of the total cardiovascular risk in patients with rheumatoid arthritis (RA) according to the SCORE scale has an important prognostic value.

Keywords: rheumatoid arthritis, cardiovascular risk, SCORE

Evaluation of endothelial function in patients with myocardial infarction

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Objectives: To study endothelial function in patients with acute myocardial infarction (AMI).

Methods: 82 patients with Q-wave MI aged from 31 to 55 years (mean age 48.61 ± 6.76 years) were examined. The endotelial function was studied by determining the level of metabolites of NO, NO synthase – eNOS and reductase nitrite – iNOS.

Results: Endothelial dysfunction in patients with AMI followed was accompanied by a decrease in the expression of NO synthase, as evidenced by a 26% decrease in eNOS ($P < 0.05$), accompanied by a decrease in metabolites of NO (NO2-NO3) by 39.8% compared to the control group ($p < 0.01$). At the same time level of reductase nitrite – iNOS was 4.2 times higher than the ratio of an indicator of control group. Decrease of expression of NO synthase promotes an intensification of oxidative stress and atherosclerosis. Continuous generation of NO provides a basal dilator effect in the human cardiovascular system, inhibits of adhesion of platelets and white cells to the vessel wall, preventing platelet aggregation and inhibits cell growth. Decrease of expression of NO synthase promotes an intensification of oxidative stress and from progression atherosclerosis. Continuous generation of NO provides a basal dilator influence in the human cardiovascular system, inhibits adhesion of platelets and white cells to the vessel wall, prevents platelet aggregation and inhibits vascular smooth muscle cell growth.

Conclusion: In patients with AMI, the decrease in NO synthase activity is important in the direct development of endothelial dysfunction.

Keywords: endothelial function, acute myocardial infarction, NO synthase

Study of Lipid metabolism in patients with chronic heart failure with renal dysfunction

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Objectives: To study of lipid metabolism in patients with chronic heart failure (CHF) taking into account functional condition of kidneys.

Methods: In total 120 patients with the coronary heart disease with CHF have been inspected. Indicators of lipid metabolism (the cholesterol, high density cholesterol (HDL) and low density (LDL), triglycerides (TG). To all patients determined the level of serumal creatinine (Kr), glomerular filtration rate (GFR) by formula MDRD.

Results: The proportion of patients with elevated LDL and decreased HDL in the blood tends to increase as the FC increases. Analysis of the functional status of the kidneys by GFRMDRD was found that in 33% of the patients under examination GFRMDRD <60 ml / min / 1.73 m^2 the study of lipid metabolism in patients with CHF with GFRMDRD <60 ml / min / 1.73 m^2 the following data were obtained: an elevated level of cholesterol in the blood is determined in 41.5% of patients; triglycerides – in 23%; LDL cholesterol – in 45.2%; a decrease in the level of HDL cholesterol is observed in 18.4% cases. Among patients with CHF with GFRMDRD ≥60 ml / min /1,73 m^2, the increas cholesterol isdetermined in 26.4% patients, hypertriglyceridemia in 19%, an increase in LDL cholesterol in 37.2%, a decrease in HDL cholesterol in 11.3% cases.

Conclusion: In patients with CHF with impaired kidney function, more pronounced violations of lipid metabolism.

Keywords: Lipid metabolism, chronic heart failure, renal function

Study of prognosis in patients with chronic heart failure

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Objectives: To study of prognosis in patients with chronic heart failure (CHF).

Methods: 180 male patients at the age of 40 to 55 years old with myocardial infarction (MI), complicated by CHF, have been examined. All patients were divided into three groups by functional class (FC) CHF: 35 patients with CHF I FC, 70 patients with CHF II FC and 75 patients with CHF III FC. We examined the main predictors of poor prognosis in patients with chronic heart failure during long-term follow-up – three years.

Results: The analysis endpoints showed that in 3 years of follow-noted development reinfarction in 57 (20.9%) cases, including 20 fatal and nonfatal 37, and 24 cases of sudden death. Depending on the development of PIM analysis on various factors showed that recurrent MI was significantly more likely to develop at the rear location of the primary MI ($\chi 2 = 15{,}613$; $P = 0.0001$). Analysis of prognostic parameters showed that patients who developed adverse outcomes for extended surveillance had a greater number of heart rate (HR), lower left ventricular ejection fraction (LVEF) less than 40%, as well as high levels of noradrenalin compared with patients who do not have the MTR. Lethality has strong positive correlation with high and average-high meanings of noradrenaline ($r=0{,}72$; $r=0{,}74$, accordingly).

Conclusion: Determination of early predictors of poor prognosis in patients with myocardial infarction identifies patients at high cardiovascular risk and poor prognosis and undertake prevention of complications, optimization of treatment.

Keywords: prognosis, chronic heart failure

Leriche syndrome in a medicine nursery

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The authors present the clinical case of a 75-year-old male, with a history of hypertension, atrial fibrillation, dyslipidemia, smoking, diabetes. Medication: varfine, losartan, hydrochlorothiazide, simvastatin, captopril. Admitted with decompensated acute obstructive pulmonary disease and congestive heart failure due to community-acquired pneumonia, requiring non-invasive ventilation. On the 5th day of hospitalization presented sudden onset of dyspnea, psychomotor agitation, abdominal pain, paresthesia in the lower limbs and priapism. Cardiac and pulmonary auscultation without changes. Blood pressure 180/110 mmHg, heart rate: 100 bpm, respiratory rate 32 cpm, Peripheral sat: 87%. Abdomen painful with superficial palpation, without signs of peritoneal irritation. Lower limbs with bilateral distal cyanosis, absent femoral pulses. Analytically: leukocytosis with neutrophilia, PCR30, negative myocardial necrosis markers, ProBnp1300, D-dimer400. Arterial gasimetry with 15L O2/ min: mixed acidosis with hyperlactacidemia. ECG: atrial fibrillation with rapid ventricular response. Chest radiography: hypo transparency in the lower 2/3, bilaterally. Abdominal CT scan: obstruction of the abdominal aorta artery, suggestive of severe atherosclerosis at the level of the iliac artery bifurcation. The patient was evaluated by vascular surgery, underwent bilateral aortofemoral bypass. Conclusion: we presented this case because it is a severe acute manifestation of peripheral arterial disease, that is rare in this age group, that requires promptly recognition and approach due to its elevated morbidity and mortality, and has to be considered in all patients with suggestive clinical presentation and risk factors, like our patient.

Keywords: Leriche syndrome, Peripheral Arterial Disease, Iliac Atherosclerosis

Profile of patients with latent tuberculosis comorbidities in HIV infection the last 8 years

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Objective: Characterization of patients with HIV infection and latent tuberculosis (TL) followed in an Angolan hospital

Method: Retrospective analysis of the processes of patients with HIV and LT infection from 01/01/2010 to 12/31/2017. Process identification was provided by hospital.

Results: LT was diagnosed in 49 patients, being evaluated 46 patients (3 patients without transfer / death registries), 35 men (M) and 11 women (W).

The ages ranged from 20 to 71 years, with an overall mean age of 37.5, with 37.9 for M and 36.2 for W. They had work activity 71.3% and 28.3% were unemployed. The detection method used was contact screening 10.9%, passive screening 2.2%, screening of other groups 82.6%, and no information 4.3%. The mantoux test was less than 10 mm in 19.6%, 11-20 mm in 67.4%, 21-30 mm in 10.9%, and 2.2% without information (WI). Only 17.4% had positive IGRA, 2.2% negative and 80.4% had no evidence. The vaccine scar was present in 87% and in 13% W. Chest x-ray was normal 91.3% M and 8.7% W. In addition to HIV infection, the other co-morbidities include hepatitis C (HCV) 30.4%, asthma 6.5%, COPD 4.3%, liver disease 2.2%. The risk factors were intravenous drugs 60.1%, other drugs 60.1%, imprisonment 21.7%, alcohol dependence 15.2%, smoking 11%, community residence 8%, homelessness 2.1% and unidentified 26%. Angolan nationality 95% and 5% Portuguese; 100% were treated with isoniazid: with treatment completed 36 patients, interruption or abandonment 10, transfer / emigration / death 3.

Conclusions: The highest number of patients diagnosed was sent by the others hospitals to this hospital according to the protocol, and it occurred in the male sex. The mantoux test determined the diagnosis of LT in 100%, 74% had a risk factor for tuberculosis. There was a high prevalence of HIV and HCV co-infection in LT patients; therapy with isoniazid was effective.

Keywords: latent tuberculosis, HIV, HCV, Isoniazid

Pulmonary Langerhans Cell Histiocytosis

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Introduction: Diffuse pulmonary cysts are uncommon presentations in clinical practice, which are part of the spectrum of manifestations of diseases such as lymphangioleiomyomatosis, pulmonary Langerhans cell histiocytosis (PLCH), lymphocytic interstitial pneumonia and follicular bronchiolitis. The combination of the clinical features, including extra pulmonary manifestations, and the imaging, mainly of the computed tomography of the thorax, is often the basis on which the diagnosis is based, when the surgical lung biopsy is not available. **Case report:** 56-year-old black woman, with a clinical history of sickle cell (S / S), splenectomy, former smoker, admitted with mild dyspnoea, cough, chest pain, fever, myoarthralgia and headache. Analytically: hemoglobin 7.9 g / dl, Leucocytes 19,600, Neutrophils 85%, Protein C Reactive 25,9, HIV negative. Antigenuria as well as blood culture were positive for pneumococcus. Chest X-ray revealed a heterogeneous bibasal opacity, more evident to the left with interstitial component. Computed Tomography showed "small areas of heterogeneous reticulomicronodular opacity at the basal segments of apparent inflammatory / infectious nature, several cystic lesions of different sizes, bilaterally distributed, findings that are suggestive of Langerhans cell histiocytosis. The bronchoalveolar lavage showed a differential cell count with predominance of macrophages, bacteriological examination was negative. Distal lung biopsies revealed... Initiated antibiotic therapy with ceftriaxone with improvement.

Discussion: HPLC is predominantly diagnosed during the third or fourth decade of life and has no predominance in sex. About 90-100% of patients have a history of smoking. The HPCL presentation is pleomorphic and 25% of the patients are asymptomatic or poorly symptomatic. The presentation includes diffuse pulmonary involvement, dry cough and exertional dyspnea that may be associated with nonspecific constitutional manifestations, such as asthenia, fever, night sweats and weight loss. Spontaneous pneumothorax occurs in 10-20% of cases. The definitive diagnosis requires biopsy with identification of granulomas of Langerhans cells. Complete remission may occur in cessation of smoking. Many patients recover spontaneously or remain stable without treatment, the effectiveness of the various treatments used for this condition is difficult to assess. In practice, no effective treatment is available.

Keywords: Pulmorary langerhans, Pulmorary cysts, Cell histiocytosis, lymphangioleiomyomatosis, Sickle cell

What hides a lumbar pain??? A clinical case

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Introduction: Bone tuberculosis is a type of extra pulmonary tuberculosis, which has increased its prevalence with the onset of HIV and especially in Angola because it still is an endemic country for this disease. So we should not dismiss lumbar pain no matter how insignificant it may be, especially if it exists in a patient with human immunodeficiency virus infection.

The authors present a clinical case of a 44-year-old female street vendor with a history of HIV infection known and treated for 2 years. No other personal background or previous hospitalizations. She went to the Emergency Department with complaints of moderate pain in the lower back region with irradiation to the lower limbs, with about 3 months of evolution and worsening in the last weeks before hospitalization, with functional impotence and loss of sensitivity in the region below nipple (T5). She also reported occasional evening fever. The observation presented bleached mucous, feverish (T38ºC), very complaining and with intense pain with palpation of the sacred loin region. Analytically: hemoglobin (Hb) 8 g / dl (normochromic normocytic anemia), PCR 57 mg / dl, leukocytosis 30,000, CD4 283 cells / mm3, viral load <20 cp / ml. Admited to the Internal Medicine Department, maintaining fever and loss of sensitivity at T5 level. CT scan of the lumbar spine revealed “destructive lesion of the L2 and L3 vertebral bodies, abscesses of the Psoas muscle bilaterally, translating spondylodiscitis of a specific nature”. The MR revealed L2 and L3 deformity, spondylodiscitis, and dehydration of the L5-S1 discs with tecal and radicular compression. She was evaluated by neurosurgery, undergone total laminectomy of L2 and partial L3, excision of peridural and intervertebral abscesses. Started treatment with anti bacillary drugs with progressive clinical improvement. The patient was discharged 3 weeks later with the use of a lumbar. Maintained follow-up in the external consultation of Internal Medicine and Neurosurgery.

Keywords: Tuberculosis, Pott disease, Extra pulmonary tuberculosis

What is hiding an ascite?

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Introduction: Ascites results from the accumulation of fluid in the peritoneum. There are numerous causes of ascites, being the infectious causes more prevalent in our local setting. The authors present a clinical case of extra pulmonary tuberculosis, in which the first manifestation of the disease was the appearance of ascites.

Description: A 34-year-old female teacher, with no known medical history went to the emergency department due to gradual increase in abdominal volume, weight loss of about 10 kg, anorexia, postprandial infarction, diarrhea without mucus, blood or pus, and unquantified hyperthermia, with almost 3 months of evolution. At physical examination she presented distended abdomen with medium volume ascites. Lower limbs without edema or signs of venous thrombosis. The chest radiography showed a left small pleural effusion and the abdominal ultrasound revealed: ascitic fluid on the supra mesocolic floor. Laboratory findings showed: negative HIV and viral hepatitis, ceruplasmin 49.5 mg / dL, negative autoantibodies (AMA, ASMA, LKM and APCA), Ca 19.9 11.6 U / L, Ca 125 62.5 U / L. The study of the ascitic liquid revealed an exudate with a predominance of lymphocytes (59%), with a total of 2517 cells / ul, 8.5 g / dl proteins, glucose 18 mg / dl, LDH 834 U / L, albumin 3,8. PCR for Mycobacterium tuberculosis was positive. Abdominal CT scan revealed pelvic abscess. She promptly received anti bacillary drugs, with a favorable clinical and laboratory response.

Conclusions: We present this case of extra pulmonary tuberculosis with serous involvement (pleural, peritoneum) as the first manifestation of disseminated disease, to emphasize that tuberculosis always has to be considerated in places with a high prevalence, as it is in our country.

Keywords: Ascites, Extra pulmonary tuberculosis, Tuberculosis, Pleural effusion, Pelvic abscess

Screening for familial hypercholesterolemia among the patients with acute coronary syndrome – Pilot project

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Objectives: Familial hypercholesterolemia (FH) is an important cause of premature atherosclerosis and therefore the development of early onset coronary heart disease (CHD). We assessed the prevalence of FH patients among the patients with acute coronary syndrome (ACS) and the therapeutic approach to this specific population of patients.

Methods: In this pilot study 208 participants were enrolled who were ≤ 60 years of age and underwent cardiac catheterization during 2017 and were hospitalised at Department of Cardiology, University Hospital Centre Zagreb. Using the diagnostic criteria for the FH (MedPed algorithm) patients having HeFH (possible, probable or definite) were identified.

Results: Seventeen out of 208 patients (8.17%) had clinical diagnosis of FH. In this group two patients (11.76%) had definite HeFH, nine patients (52.94%) had probable HeFH and six (35.29%) patients had possible HeFH. Many patients did not have information about family hystory on early CHD and data about presence of xanthoma and corneal arcus. Patients with FH were treated as followed: 70.59% were on statin therapy before hospitalisation; 29.41% were without statin therapy. On discharge, 94.12% were on statin therapy and 5.88% without! Mean LDL-cholesterol value in FH patients before/without statin therapy was 6.7 mmol/l while mean LDL cholesterol value in ACS patients, FH excluded from group, was 3.1 mmol/l. Only 25% of prehospital statin-treated patients were on high-intensity statin therapy. The percentage of patients treated by high-intensity statin was increased to 37.5% posthospital. None of the patients achieved target LDL-cholesterol values ≤1.8 mmol/l.

Conclusions: The results of our pilot study showed that FH is underrecognised and therefore underdiagnosed in patients with early onset ACS. One out of twelve patients who develop ACS is FH patient. Despite using statins none of patients with FH reached targed LDL-cholesterol values. Therefore patients with FH are still in a great risk for the development of new cardiovascular event.

Literature: Reiner et al. Eur Heart J (2011);32:1769–1818

Keywords: familial hypercholesterolemia, acute coronary syndrome, statins

Anthropometric measures and blood pressure: initiatives, achievements

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Objectives: Generally, impressive collection of scientists opinions suggests more subjects support statement that visceral obesity is associated with higher incidence of diabetes, insulin resistance, dyslipidemia, hypertension, cardiovascular disease, which are prospering due to reviving importance of mortality causes and are possessing straining growth of illnesses prevalence everywhere. It's well-known that hypertension occupies the prominent place among modifiable risk factors of cardiovascular disease. The subsequent circumstances underlining adverse capacities of hypertension to lead heart attacks, stroke, kidney failure posed serious threats to modify the conceptual reasoning, obesity implied portent of upcoming change of attempts to sink prodigious amount of new indices into investigations schemes for their implementation in practice.

Methods: We executed EPOGH (n=300), used clock-time-dependent method narrow-approach for ambulatory BP, conicity index (CI).

Results: For developing effective wellbeing strategies, it's essential to clarify efficacy of easy, economical, accurate mathematical determinants for assessment of body composition. To our comprehension, obesity measures are considered as predictors of offered preferable choice in each case of prehypertension or hypertension being indicted in turn for coronary heart disease. In abundance of foretelling indicators the influx of indices has been marked by appearance of handful disquietingly eager fellows appreciating obesity and establishing key role of CI in this splash. Hence, we defined correlation of CI with SBP, DBP, Hr clinic (r=0.567; r=0.557; r=-0.014), home (r=0.507; r=0.471; r=-0.026), 24-hour (r=0.526; r=0.460; r=-0.098), day (r=0.494; r=0.386; r=-0.138, p=0.017), night (r=0.501; r=0.488; r=-0.020), p<0.001. When scrutinizing resources we deduced several doctrines, the gathered invincibly danger notions worked well enough to shore up the core in dominating prediction of indices, MetS (NCEP-ATP-III) for acute-STEMI severity, especially towards CI anticipation of total in-hospital complications [1]. This item affords us a glimmer of enlightenment, whereas CI fortifies accuracy of abdominal fat accumulation, it generates presage of impairment kidney function. Indeed, CI yielded predictive values for diminished kidney function in pre-dialysis CKD patients, systemic inflammation. According facts being seen by some scholars, who announced forecasting of CI for new-onset of high BP in both genders, CI renders great contribution to MetS, respectively [2]. Again, other evidence confirmed CI predictive possibilities for high coronary risk, cardiovascular risk. Additional proof, integration of CI with glucose, cholesterol, LDL, HDL reaped benefit in men. It's noteworthy that CI represented prevailing negative association with adiponectin in diabetesT1.

Conclusions: At best, there is hope that high implication of testimonies may break majority of doubts concerning utterly important anthropometric indicators for convenience at clinic. We believe that such exploration is crucial to protect interest but of course we reach this judgment carefully given that in such challenging estimation of risk is fairly worthy.

Literature:

1. Marko Mornar Jelavic, et al. The importance of two metabolic syndrome diagnostic criteria and body fat distribution in predicting clinical severity and prognosis of acute myocardial infarction. Arch. Med. Sci., 2017; 13, 4: 795–806.
2. Haoyu Wang, et al. Comparison of anthropometric indices for predicting the risk of metabolic syndrome and its components in Chinese adults: a prospective, longitudinal study. BMJ Open, 2017; 7:e016062, 1-10.

Keywords: conicity index, hypertension, cardiovascular disease, anthropometry

Effects of age on left ventricular diastolic function

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Objectives: The left ventricular diastolic function is characterized by the ability of the myocardium to quickly relax and thus to induce and subsequently passively receive blood from the left atrium. The diastolic function may be deteriorated by associated diseases such as arterial hypertension, often accompanied by myocardial hypertrophy, or coronary artery disease. The most frequent method to assess the left ventricular diastolic function is echocardiography. We use several specific parameters to describe presence and severity of diastolic dysfunction. Firstly, it is the assessment of the transmitral flow and secondly the tissue Doppler echocardiography of the mitral valve anulus. These parameters also help us to estimate the left ventricular filling pressures and thus to predict the possible presence of post-capillary pulmonary hypertension with possible subsequent left-sided heart failure.

Methods: We retrospectively searched and analysed data from a computerised echocardiography database of subjects investigated at our department between January 2010 and December 2015. We used both data of the outpatient and hospitalized patients. We only enrolled subjects with sinus rhythm, left ventricular ejection fraction 55% or higher, without any major valvular disease or other significant patology. By a subsequent manual search of hospital records we divided the subjects into three groups based on their clinical history – healthy patients, patients with arterial hypertension and patients with coronary artery disease. For all subjects, several echocardiographic parameters of the transmitral flow were assessed: E wave velocity, A wave velocity, E wave deceleration time (DtE) and the E/A ratio. Furthermore, we analysed the tissue Doppler velocities of septal and lateral mitral anulus (e´ sep, a´ sep, e´ lat, a´ lat) and the e´/a´ ratio. Also, the septal, lateral and average E/e´ ratio was calculated. To analyse the data statistically we used the basic methods of descriptive statistics, the value of $P < 0.05$ was considered statistically significant. We applied the Chi-square test for comparison of the three evaluated groups.

Results: We study data of 999 subjects, mean age 60.1±14.4 years, 48.5% were men. The group of healthy patients comprised of 363 subjects, group with arterial hypertensions 429 subjects and group with coronary artery disease 207 subjects. After we divided the patients into three groups according to the comorbidities, we found out that the diastolic function deteriorates with age regardless of the presence of arterial hypertension or coronary artery disease (Tables 3, 4 and 5). With the exception of the E wave deceleration time, Chi-square test did not find any statistically significant differences in the measured parameters between these three groups.

Conclusions: Results of this study clearly show progressive age-related deterioration of the left ventricular diastolic function. This refers to all echocardiographic parameters, and around the age of 50 the values can already be considered as a grade I diastolic dysfunction – impaired relaxation. Furthermore, we found out that the development of diastolic dysfunction is not accelerated by the comorbidities such as arterial hypertension or coronary artery disease. Thus, it seems that the progressive impairment of diastolic function might be a physiological manifestation of myocardial aging.

Keywords: echocardiography, left ventricular diastolic function, age, arterial hypertension, coronary artery disease

Analysis of risk factors and peculiarities of polymorphism of genes in patients with ischemic damage of organs without the symptoms of stenotic atherosclerosis

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Relevance: The heart and the brain are interrelated target organs of vascular pathology, which continue to lead in the structure of the causes of mortality in developed countries. It is known that approximately 10–20% of patients undergoing diagnostic coronary angiography in connection with acute or chronic ischemic syndrome, arteries are intact. The key theories are the theory of endothelial dysfunction, caused in most cases by gene polymorphism. Inflammatory damage to the arteries, the impact of neurohumoral factors, as well as the presence of a genetic predisposition. It is assumed that endothelial dysfunction is primarily associated with increased formation of highly active products of peroxidation (free radicals).

Purpose of the study: To study the prevalence and degree of the main risk factors for the development of atherosclerosis among the study groups. To analyze the polymorphism of the lipid metabolism genes and the genes of regulation of the tone and structure of the vascular wall in a group of patients undergoing myocardial infarction or stroke with angiographically intact arteries, and also to associate the polymorphism of the studied genes. We studed and compare phenotype features and polymorphism of ApoE, MMP1, MMP3, MTHFR, MTRR, NOS3, ACE, FGB, F2 in patients who underwent myocardial infarction or stroke with angiographically intact arteries.

Practical significance: Analysis of polymorphic variants of cardiovascular genes (ApoE, MMP1, MMP3, MTHFR, MTRR, FGB) can be considered as a prognostic test for assessing the risk of myocardial infarction and stroke in people with a clinical picture of the disease and healthy individuals.

Keywords: atherosclerosis, polymorphism of genes, cardiovascular genes (ApoE, MMP1, MMP3, MTHFR, MTRR, FGB) c

Role of thrombophilic factors in chronic thromboembolic pulmonary hypertension

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One of the types of pulmonary hypertension (PH) is chronic thromboembolic pulmonary hypertension (CTEPH), which is a remote complication of pulmonary embolism (PE) and is most often diagnosed in young and middle-aged people who are not burdened before the development of PE by any other diseases, which demonstrates high social significance of this pathology [1]. One of the key risk factors for CTEPH development is the presence of hereditary forms of thrombophilia.

The purpose of this work was to estimate the frequency of occurrence and the role of various types of thrombophilia in the development of CTEPH and the possible correction of anticoagulant therapy [2].

Material and methods: Twenty patients with confirmed diagnosis of CTEPH were included in the study according to the available criteria – 12 women (60%) and 8 men (40%). The mean age was 52 ± 2,1 years. All patients were screened for a panel of hematogenous and autoimmune thrombophilia: genetic defects of folate cycle enzymes, antibodies (AT) to phospholipids of IgG and IgM class, protein S, C and antithrombin III levels, lupus anticoagulant, homocysteine, mutations in V, VII, XII and XII factors of the coagulation system, fibrinogen gene, integrin-α.

Results: Practically all patients (16 patients – 80%) had hyperhomocysteinemia, including in combination with mutations in the folate cycle system (in 14 of 16 patients). AT to phospholipids and an increase in the level of lupous anticoagulant was detected in only 5% of cases. A significant contribution to the development of thrombosis was caused by a decrease in the level of protein C, S and antithrombin III (40% of cases). In 45% of cases, mutations in the fibrinogen gene (homozygous variant) were detected and in 40% of cases in the gene of the factor VII of the coagulation system (predominantly heterozygous variant). Mutation in gene V factor of the coagulation system (Leiden's mutation) was detected in only 5% of cases, but caused a more severe course of HTEPH and relapses of venous thromboembolism. All patients underwent anticoagulant therapy: 25% of patients received warfarin in various doses; 75% of patients had new oral anticoagulants: rivaroxaban (60%) at a dose of 15 mg or 20 mg/day, apixaban (5%) at a dose of 5mg × 2r, dabigatran (10%) at a dose of 150 mg/day. Identification of certain mutations caused a possible addition to the therapy of folic acid and B vitamins, and also determined the lifetime appointment of anticoagulant therapy.

Conclusions: Screening of patients for possible hematogenous and autoimmune thrombophilia should be performed in all patients with a confirmed diagnosis of CTEPH for possible correction of the therapy, including the choice of anticoagulant therapy regimen and prevention of recurrent venous thromboembolism.

Literature:

1. ESC/ERS Guidelines for the Diagnosis and Treatment of Pulmonary Hypertension, 2015 http://www.scardio.ru/content/ Guidelines/ESC%20_L_hypert_2015.pdf (In Russ.)
2. Kingman M., Hinzmann B., Sweet O., et al. Living with pulmonary hypertension: unique insights from an international ethnographic study. BMJ Open 2014;4:e004735. DOI: 10.1136/bmjopen-2013-004735. PMID: 4024598.

Keywords: chronic thromboembolic pulmonary hypertension, pulmonary embolism, hereditary thrombophilia

The effect of cardiac complications on outcomes of extensive surgical interventions

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Throughout the world, more than 200 million people are exposed to non-cardiological operations of a large volume every year, and the number of such patients is steadily increasing [1]. It has been estimated, that about 30% of approximately 19 million surgical interventions performed in Europe in a year are patients with concomitant cardiovascular pathology, which had complications in the postoperative period [2]. Cardiac mortality after noncardial operations according to the literature is between 0.5% and 1.5%, and the incidence rate is from 2% to 3,5% [2, 3].

Objective: to assess the frequency of cardiac complications occurring in patients during the first month after major surgical interventions.

Methods: analysis of the results of treatment of patients (n = 61), operated in the urological department of Pirogov's Clinical Hospital 1, Moscow, in regard to kidney cancer with tumor thrombosis of the inferior vena cava and musculo-invasive bladder cancer in the period from 2011 to 2015. Radical nephrectomy with removal of a tumor thrombus from the inferior vena cava and retroperitoneal lymphadenectomy was performed in 18 patients, radical cystectomy was performed in 43 patients. The mean age of the patients was 65.5 ± 8.7 years. 35 patients (57%) had the 3-d degree of anesthesia risk (ASA), the 2-d degree – in 26 patients (43%). Among the concomitant pathologies prevailed: arterial hypertension – 65%, coronary heart disease – 14.7%, diabetes mellitus – 14.7%, acute cerebrovascular accident in the anamnesis – 9.8%. The combination of two or more diseases in one patient occurred in 29.4% of cases. Only 34% of patients received adequate medication.

Results: within a month after the operation, cardiac complications in 8.2% of cases were observed in patients, including those with a fatal outcome: 3 cases of acute myocardial infarction development, 1 case of acute cerebrovascular accident, 1 episode of pulmonary embolism. Nonfatal complications included episodes of transient myocardial ischemia (19.6% of cases), paroxysm of atrial fibrillation (4.9% of cases).

Conclusion: considering the large number of cardiac complications in patients who underwent extensive surgical interventions, careful pre-operative correction of risk factors, including correction of drug therapy in patients with comorbid pathology, observation of patients by a therapist in the early postoperative period is necessary.

Literature:

1. Devereaux P.J., Sessler D.I. Cardiac complications in patients undergoing major noncardiac surgery. N Engl J Med 2015;373:2258–2269.
2. Kristensen S.D., Knuuti J., Saraste A. et al. 2014 ESC/ESA Guidelines on non-cardiac surgery: cardiovascular assessment and management. The Joint Task Force on non-cardiac surgery: cardiovascular assessment and management of the European Society of Cardiology (ESC) and the European Society of Anaesthesiology (ESA). Eur Heart J 2014;35:2383–2431.
3. Fleisher L.A., Fleischmann K.E., Auerbach A.D. et al. 2014 ACC/AHA Guideline on Perioperative Cardiovascular Evaluation and Management of Patients Undergoing Noncardiac Surgery. A Report of the American College of Cardiology/American Heart Association Task Force on practice guidelines developed in collaboration with the American College of Surgeons, American Society of Anesthesiologists, American Society of Echocardiography, American Society of Nuclear Cardiology, Society for Cardiovascular Angiography and Interventions, and Society of Cardiovascular Anesthesiologists. Circulation 2014;130:2215–2245.

Keywords: Cardiac complications, Extensive surgical interventions, Preoperative preparation

Determination of complications and lethality based on the results of a 5-year study in patients with CHD in combination with other somatic diseases

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The aim of the study. Monitoring of complications and mortality based on the results of a 5-year study in a cohort of men and women with CHD in combination with other somatic disease in the Ingush Republic.

Materials and methods. The study included 320 patients (143 males and 177 females in the age range of 46-72 years) with angina pectoris of I-III FC that were examined in 2012 in four medical centers of the Ingush Republic (North Caucasus). Patients were invited to re-examine. For the primary endpoints, the following indicators were taken: verified acute myocardial infarction, ischemic cerebral stroke, type 2 diabetes mellitus and its complications, death from CVD and death from all causes.

Results. The number of patients with angina pectoris in comorbidity with other somatic disease was 196, while angina pectoris without comorbidity was 124 patients. Over the period of 5 years of follow-up, CABG developed in 17 (5 males, 11 wives) patients, MI in 37 (20 males, 17 wives) patients, diabetes in 38 patients (15 males, 23 females), CVD mortality in 11 8 husbands, 3 wives, 5 of them – ACS, 4 – stroke, 3 – CHF) and death from other causes in 8 (3 men, 5 women). The stroke was registered in 13 patients with comorbidity against 3 cases in the CHD group without other diseases. Myocardial infarction was detected in 33 patients with CHD and a combination of three somatic diseases, versus 4 cases in persons without comorbidity. Diabetes mellitus was diagnosed in 32 patients in the first group, and in the second group 6 cases. The lethal outcome from CVD was registered in 10 patients with comorbid pathology versus 1 case in the group without comorbidity. Death from all causes in the first group was recorded in 5 cases versus 3 cases in the second group. Thus, the combination of CHD with two or more somatic diseases over a 5-year follow-up period increases the risk of both complications and deaths due to CVD.

Keywords: comorbidity, angina pectoris, endpoints, CHD

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