

EDITORIAL

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In this July issue of Clinics we highlight a study by **Veiga et al.** who performed a within-breath analysis of respiratory mechanics by the Monofrequency Forced Oscillation Technique in 22 healthy and 22 asthmatic patients and concluded that the technique permits a non-invasive and detailed analysis in different phases of the respiratory cycle, providing parameters that are adequate for the diagnosis of asthma with high accuracy. Respiratory impedance values were significantly higher in asthmatics: these results are in close agreement with recently published theories and pathophysiological fundamentals and confirm the high clinical and scientific potential of this methodology in the evaluation of asthmatic patients. Clinics also publishes 11 other clinical science studies and a basic research article.

Silva et al. determined the predictors of in-hospital mortality among 856 older patients (aged 60 – 104 years) admitted to a geriatric care unit from February 2004 to October, 2007. The overall mortality rate was 16.4%, and the following factors were significantly associated with higher in-hospital mortality: delirium, neoplastic disease, serum albumin levels at admission <3.3mg/dL, serum creatinine levels at admission ≥ 1.3 mg/dL, history of heart failure, immobility and very advanced age.

Gusmão et al. assessed the influence of hypertension control upon quality of life in 77 hypertensive patients with and without complications (71% women, 58% white, 60% with elementary school level education, average age 54 ± 8 years). Patients were observed during a 12-month special care program (Phase 1) followed by a three years of standard care routine (Phase 2). The variables studied were quality of life, blood pressure control, hypertension gravity, and demographic characteristics. Systolic and diastolic blood pressures were significantly higher in phase 2 relative to phase 1. The patients with complications showed decreased bodily pain, increased vitality, and mental health in both phases. They

conclude that Special Care Programs with multidisciplinary activities, individualized and personalized assistance, easy access to pharmacological treatment, frequent meetings, and active telephone calls for hypertensive patients significantly increase blood pressure control but do not interfere with the quality of life.

Henriques et al. investigated the recognition of depressive symptoms of major depressive disorder through a cross-sectional study of 316 outpatients at their first visit to a teaching general hospital as detected by 19 general practitioners using Primary Care Evaluation of Mental Disorders to detect depressive symptoms. These data were compared to those observed by 11 psychiatrists using Structured Clinical Interview Axis I Disorders. Likelihood ratios, sensitivity, specificity, false positive and false negative frequencies were estimated. They conclude that programs for training physicians in the use of diagnostic tools should consider their performance in recognizing specific depressive symptoms. Such procedures could allow for the development of specific training to aid in the detection of the most misrecognized depressive symptoms.

Mendes et al. retrospectively evaluated ultrasonographic findings obtained from 215 patients in cataract-detection-and-treatment campaigns between the years of 2005 and 2007, and the utility of this exam in redirecting treatment procedures. The ultrasonographic examination revealed and differentiated between eyes with cataracts and eyes with ocular abnormalities other than cataracts as the cause of poor vision, thereby indicating the importance of its use during ocular evaluation. They conclude that in many cases, the ultrasonographic evaluation of the posterior segment revealed significant anomalies that led to changed original treatment plans or contra-indicated surgery. At the very least, the evaluation was found to be useful for patient counseling.

Costa et al. evaluated the expression of prostasin in 12 cases of ovarian cancer, as a potential tumor marker in this malignancy. Using conventional PCR, prostasin was detected in all but one sample. Using quantitative PCR, prostasin was overexpressed in all but one of the samples as compared to

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the matched control cases. They conclude that the finding indicates that prostasin is overexpressed in many epithelial ovarian cancers. Further studies of prostasin as a potential biomarker for this disease are therefore warranted.

Gallo et al. investigated the role of psychological stress in the genesis of recurrent aphthous stomatitis (RAS), the most common type of ulcerative disease of the oral mucosa. Twenty-five RAS patients (study group) were compared to 25 non-RAS matched patients (control group), and a significantly higher level of psychological stress was found among RAS group patients when compared to the control group. They conclude that psychological stress may play a role in the manifestation of RAS; possibly as a trigger or a modifying factor rather than being a cause of the disease.

Casella et al. compared common carotid artery intima-media thickness between 206 Brazilian euro-descendants and afro-descendants with atherosclerosis risk factors. Multivariate analysis identified male sex, arterial hypertension and older age as variables associated with increased intima-media thickness, but no significant differences were noted between the two ethnic groups in this study. The risk factors associated with increased common carotid artery intima-media thickness in Brazilian individuals were found to be similar to those in previously described populations. They suggest that longitudinal studies are required for a better evaluation of the incidence, etiologic factors and evolution of carotid intimomedial thickening in this population.

Marques et al. evaluated the effect of listening to Mozart's Sonata for Two Pianos in D Major upon their performance in the automated perimetry test (a psychophysical test used to assess visual fields in patients with neurological disorders and glaucoma). A total of 52 elderly subjects were exposed to the sonata before the test and compared to 27 matched patients who underwent the test without the previous musical stimulus. They found that the study group had significantly lower false negative rates, an altered visual field reliability score and a shorter test time as compared to the controls. These results are described as different from previously described data for the same scenario applied to young patients.

Matos et al. compared esophageal infusion with 0.1 N hydrochloric acid vs. saline in 29 patients presenting with typical gastroesophageal reflux symptoms. Upper gastrointestinal endoscopy was performed: a Control Group consisted of 18 patients with normal esophagi 9 infused with HCl, 9 with saline; a Lesion Group consisted of 11 patients with erosive esophagitis 5 infused with HCl, 6 with saline. Biopsies of the esophageal mucosa were collected before and after infusions. No statistically significant difference was

described between the two types of infusions in terms of the dilation of the intercellular space of the esophageal epithelium, regardless of the status of the patient. They conclude that the response to HCl infusion cannot be used as a marker for gastroesophageal reflux disease.

Bampi et al. prospectively compared non-invasive methods for the detection of coronary atherosclerosis in 100 consecutive patients, (mean age 55 years, 55% men). Univariate analysis showed that calcium score, HDL-c, TG/HDL ratio and IMT were significantly correlated with the Friesinger index. Multivariate analysis indicated that only calcium score and low HDL-c levels correlated significantly with the extension of coronary atherosclerosis. ROC analysis showed that calcium score, HDL-c and the TG-HDL ratio accurately predicted extensive coronary atherosclerosis in a statistically significant manner. They therefore conclude that it is possible to approximately determine the presence and extent of coronary atherosclerosis by non-invasive methods, especially by calcium score, HDL-c and TG/HDL-c ratio assays.

Forti et al. evaluated the effects of chest physiotherapy (CCP) vs conventional physiotherapy associated with transcutaneous electrical diaphragmatic stimulation (CCP+TEDS) on the respiratory function of 44 female postoperative gastropasty patients (mean age: 37 years mean BMI 47.4). No differences were detected between CCP and CCP+TEDS, and that both factors contributed to the maintenance of pulmonary flow and volume as well as to the inhalation muscle strength. However transcutaneous electric diaphragmatic stimulation was found to contribute to expiratory muscle strength. They conclude that both conventional chest physiotherapy and conventional chest physiotherapy + transcutaneous electric diaphragmatic stimulation prevent the reduction of pulmonary function during the Roux-en-Y gastric bypass postoperative period.

Duarte et al. evaluated the role of oxidative stress and lipid peroxidation in the ventricular remodeling induced by tobacco smoke exposure after myocardial infarction in a murine model. They found that rats exposed to tobacco smoke had higher diastolic and systolic ventricular areas, but a smaller fractional area change. Tobacco smoke was also associated with a higher water percentage in the lung, and higher cardiac levels of reduced glutathione and oxidized glutathione. They therefore conclude that oxidative stress is associated with the intensification of ventricular remodeling after myocardial infarction in animals exposed to tobacco smoke.

We also publish a revision on hypercalcitonemia and medullary thyroid carcinoma and 3 case reports.