

## Selected Abstracts of Articles Published Elsewhere by Authors in Kuwait

Kuwait Medical Journal 2006, 38 (3): 245-247

### Levosimendan or Milrinone in the Type 2 Diabetic Patient with Low Ejection Fraction Undergoing Elective Coronary Artery Surgery

Al-Shawaf E, Ayed A, Vislocky I, Radomir B, Dehrab N, Tarazi R  
Department of Anesthesia, The Chest Diseases Hospital, Ministry of Health, Safat, Kuwait.  
E-mail: ealshawaf@hsc.edu.kw

**J Cardiothorac Vasc Anesth 2006; 20:353-357**

**Objectives:** The purpose of this study was to compare the hemodynamic profiles and the postoperative insulin requirements in 2 groups of type 2 diabetic patients with depressed myocardial function who underwent elective surgery for coronary artery disease and who received levosimendan or milrinone for postcardiopulmonary bypass low-output syndrome.

**Design:** Randomized controlled trial.

**Setting:** The Chest Diseases Hospital, Safat, Kuwait.

**Participants:** Type 2 diabetic patients undergoing elective surgery for coronary artery disease.

**Interventions:** Fourteen patients and 16 patients received levosimendan and milrinone infusions, respectively, for treatment of the low-output syndrome.

**Measurements And Main Results:** The hemodynamic, mixed venous oxygen saturation, oxygen extraction ratios, arterial lactate concentrations, and postoperative insulin infusion rates were serially documented for the first 48 hours after the diagnosis. The cardiac index and mixed venous oxygen saturation were significantly higher in the levosimendan group. The pulmonary capillary wedge pressure, systemic vascular resistance, and oxygen extraction ratios were significantly higher in the milrinone treatment group. The insulin requirements were similar for both of the treatment groups.

**Conclusions:** Levosimendan was more efficient than milrinone for treating the hemodynamic manifestations of the postcardiopulmonary bypass low-output syndrome. However, all the values in the milrinone treatment group were normalized. In this small population, both treatment groups had similar postoperative insulin requirements.

### Clinicoepidemiological Features and Course of 43 Cases of Bullous Pemphigoid in Kuwait

Nanda A, Al-Saeid K, Al-Sabah H, Dvorak R, Alsaleh QA.  
As'ad Al-Hamad Dermatology Centre, Al-Sabah Hospital, Kuwait. E-mail: artinanda@hotmail.com

**Clin Exp Dermatol 2006; 31:339-342**

**Background:** The clinicoepidemiological characteristics and course of bullous pemphigoid (BP) have not been described in populations from the Arabian Gulf. Hypothesis. Ethnic and regional variations can influence the clinical behaviour and course of autoimmune diseases.

**Methods:** In this study, 43 patients with BP, registered in our autoimmune bullous diseases (ABD) clinic over a span of 14 years, were studied to determine the clinicoepidemiological features and course of the disease in our region.

**Results:** BP was observed to be the second commonest ABD in our clinic (27%), with a minimum estimated incidence of 2.6 cases/million/year among the referral population. The largest proportion (93%) of the patients was of Arab ethnicity and the female to male ratio was 5.1 :1. Mean +/- SD age

at diagnosis was 65.20 +/- 18.80 years. Most of the patients (96%) had moderate to severe disease, and mucosal involvement was seen in 37% of the patients. Systemic steroids (prednisolone 20-60 mg daily) alone or in combination with azathioprine, intravenous immunoglobulins, tetracyclines, mycophenolate mofetil or dapsone were used to treat these cases. At the last follow-up, 32% of patients were in complete remission and off treatment. The first-year mortality was 30%. Old age and poor general medical condition were the significant risk factors ( $P < 0.05$ ) contributing to the mortality.

**Conclusions:** The study highlights the regional variations of BP and thus a need to uncover the ethnic, genetic and geographical influences, if any, responsible for these variations.

## Aspiration versus Tube Drainage in Primary Spontaneous Pneumothorax: a Randomised Study

Ayed AK, Chandrasekaran C, Sukumar M

Department of Surgery, Kuwait University, Faculty of Medicine, and Dept of Thoracic Surgery, Chest Diseases Hospital, P.O. Box 24923, Safat 13110, Kuwait. E-mail: Adel@hsc.edu.kw

**Eur Respir J 2006; 27:477-482**

This randomised study was designed to compare clinical outcomes for simple aspiration versus tube thoracostomy, in the treatment of the first primary spontaneous pneumothorax (PSP) attack. A randomised trial, comparing simple aspiration with tube thoracostomy, in 137 patients with a first episode of PSP was carried out. Immediate success was obtained in 40 out of the 65 patients (62%) randomly assigned to undergo simple aspiration and in 49 out of the 72 patients (68%) who had been randomly assigned to undergo tube thoracostomy. The 1-week success rates were: 58 (89%) patients in the intention-to-treat simple aspiration group and 63 (88%) patients in the tube thoracostomy group. In the aspiration group, there were more recurrences during the 3-month follow-up period (15 versus 8%), though the difference was not significant. Recurrence rates at 1 and 2 yrs were 16 (22%) and 20 (31%) for patients who had undergone simple aspiration, respectively, and 17 (24%) and 18 (25%) for patients who had undergone tube thoracostomies, respectively. Complications occurred in 5 (7%) patients who had undergone a tube thoracostomy and 1 (2%) patient who had undergone simple aspiration. Analgesia was required in 22 (34%) patients of the simple aspiration group versus 40 (56%) patients of the tube thoracostomy group. These findings suggest that simple aspiration could be an acceptable alternative to tube thoracostomy in the treatment of primary spontaneous pneumothorax.

## Do Differences in Age Specific Androgenic Steroid Hormone Levels Account for Differing Prostate Cancer Rates between Arabs and Caucasians?

Kehinde EO, Akanji AO, Al-Hunayan A, Memon A, Luqmani Y, Al-Awadi KA, Varghese R, Bashir AA, Daar AS

Department of Surgery (Division of Urology), Faculty of Medicine, Kuwait University, Kuwait.  
E-mail: ekehinde@hsc.edu.kw

**Int J Urol 2006; 13:354-361**

**Objective:** Factors responsible for the low incidence of clinical prostate cancer in the Arab population remain unclear, but may be related to differences in androgenic steroid hormone metabolism between Arabs and other populations, especially as prostate cancer is believed to be androgen dependent. We therefore measured the levels of serum androgenic steroids and their binding proteins in Arab men and compared results obtained with values reported for Caucasian populations to determine if any differences could at least partially account for differences in incidence of prostate cancer rates between the two populations.

**Methods:** Venous blood samples were obtained from 327 unselected apparently healthy indigenous Arab men (Kuwaitis and Omanis) aged 15-79 years. Samples were also obtained from 30 Arab men with newly diagnosed prostate cancer. Serum levels of total testosterone (TT), sex hormone binding globulin (SHBG), derived free androgen index (FAI); adrenal C19 -steroids, dehydroepiandrosterone sulfate (DHEAS) and androstenedione (ADT) were determined by chemiluminescent immunoassay. Age specific reference intervals, mean and median for each analyte were determined. Frequency distribution pattern for each hormone was plotted. The reference range for hormones with normal distribution was mean  $\pm$  2SD and 2.5-97.5% for those with non-normal distribution. The mean serum levels of the hormones in Arab men with prostate cancer were compared with values in healthy age-matched Arab men.

**Results:** There was a significant decrease between the 21-29 years age group and the 70-79 years age group for TT (-38.77%), DHEAS (-70%), ADT (-36%) and FAI (-63.25%), and an increase for SHBG (+64%). The calculated reference ranges are TT (2.73-30.45 nmol/L), SHBG (6.45-65.67 nmol/L), FAI (14.51-180.34), DHEAS (0.9-11.0 micromol/L) and ADT (0.54-4.26 ng/mL). The mean TT, SHBG, DHEAS and ADT in Arab men were significantly lower than those reported for Caucasians especially in the 21-29 years age group. Arab men with newly diagnosed prostate cancer had higher serum TT ( $P < 0.7$ ), ADT ( $P < 0.2$ ), SHBG ( $P < 0.2$ ) and lower DHEAS ( $P < 0.008$ ) compared to aged matched controls.

**Conclusions:** Serum TT, SHBG, DHEAS and ADT levels are significantly lower in Arab men compared to those reported for Caucasian men, especially in early adulthood. Arab men with newly diagnosed prostate cancer have higher circulating androgens compared to healthy controls. We suggest that low circulating androgens and their adrenal precursors in Arab men when compared to Caucasians may partially account for the relatively lower risk for prostate cancer among Arab men.

## Long term Effects of Ketogenic Diet in Obese Subjects with High Cholesterol Level

Dashti HM, Al-Zaid NS, Mathew TC, Al-Mousawi M, Talib H, Asfar SK, Behbahani AI  
Department of Surgery, Kuwait University, Safat, Kuwait. E-mail: info@drdashti.com

**Mol Cell Biochem 2006; 286:1-9**

**Objective:** Various studies have convincingly shown the beneficial effect of ketogenic diet (in which the daily consumption of carbohydrate is less than 20 grams, regardless of fat, protein and caloric intake) in reducing weight in obese subjects. However, its long term effect on obese subjects with high total cholesterol (as compared to obese subjects with normal cholesterol level is lacking. It is believed that ketogenic diet may have adverse effect on the lipid profile. Therefore, in this study the effect of ketogenic diet in obese subjects with high cholesterol level above 6 mmol/L is compared to those with normocholesterolemia for a period of 56 weeks.

**Materials And Methods:** In this study, 66 healthy obese subjects with body mass index (BMI) greater than 30, having high cholesterol level (Group I;  $n = 35$ ) and those subjects with normal cholesterol level (Group II;  $n = 31$ ) were selected. The body weight, body mass index, total cholesterol, LDL-cholesterol, HDL-cholesterol, urea, creatinine, glucose and triglycerides were determined before and after the administration of the ketogenic diet. Changes in these parameters were monitored at 8, 16, 24, 32, 40, 48 and 56 weeks of the treatment.

**Results:** The body weight and body mass index of both groups decreased significantly ( $P < 0.0001$ ). The level of total cholesterol, LDL cholesterol, triglycerides and blood glucose level decreased significantly ( $P < 0.0001$ ), whereas HDL cholesterol increased significantly ( $P < 0.0001$ ) after the treatment in both groups.

**Conclusion:** This study shows the beneficial effects of ketogenic diet following its long term administration in obese subjects with a high level of total cholesterol. Moreover, this study demonstrates that low carbohydrate diet is safe to use for a longer period of time in obese subjects with a high total cholesterol level and those with normocholesterolemia.