International Braz J Urol

EDITOR'S COMMENT

Anti-neoplastic Activity of Curcumin in PCa

The May – June 2009 issue of the International Braz J Urol presents important contributions from different countries, and as usual, the editor's comment highlights some papers.

Doctor Leite and co-investigators, from Laboratory of Medical Investigation, Sao Paulo University, SP, Brazil, investigated on page 354 the anti-neoplastic effect of curcumin in prostate cancer cell lines. Specifically, they used the LNCaP cell line and another prostate cell line developed in their own laboratory, PcBra1. A prostate cancer cell line was isolated from a localized prostate cancer with a Gleason score of 9 (4+5). After six passages, the new cell line was treated with varying doses of curcumin. Apoptosis was detected by flow cytometry using Annexin V FITC. For comparison, the same experiment was performed using the well-established metastatic prostate cancer cell line, LNCaP. Increasing concentrations of curcumin promoted more apoptosis in the PcBra1 cells. Exposure to 10 and 25 μM curcumin induced apoptosis in 31.9% and 52.2% of cells, respectively. Late apoptosis was induced in 37% of cells after treatment with 10 μM curcumin and 35% of cells with a 25 μM treatment. Necrosis accounted for less than 10% of the death in these cells at those 2 concentrations. When curcumin was used at 50 μM, apoptosis was observed in 64.3% of the cells. In conclusion, the authors have shown that curcumin acts on localized prostate cancer to induce apoptosis and may therefore be an option as a future therapeutic agent. Dr. Gerd Birkenmeier, from Institute of Biochemistry, School of Medicine, University of Leipzig, Germany, provided an interesting editorial on this research.

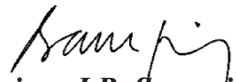
Doctor Lang and co-workers, from Downstate School of Medicine, Brooklyn, NY, USA, studied on page 271 the efficacy of the intercostal versus subcostal access route for percutaneous nephrolithotripsy. Among 642 patients that underwent nephrolithotomy or nephrolithotripsy, a total of 127 had an intercostal access tract (11th or 12th rib) and 515 had a subcostal access tract. Considering the major complications found and the advantages that the intercostal access route offers to the surgeon, the authors concluded that it is reasonable to recommend its use after proper pre-procedural assessment of the anatomy, and particularly the respiratory lung motion. Dr. Evangelos Liatsikos, from University of Patras Medical School, Greece, Dr. Riccardo Autorino & Dr. Marco De Sio, from Second University of Naples, Italy and Dr. John Denstedt, from The University of Western Ontario, London, ON, Canada, all of them well-recognized experts in the field, provided important comments on this paper.

Doctor Mezentsev, from Harrogate and District NHS Foundation Trust, England, UK, performed on page 293 a systematic review and meta-analysis to compare non-steroidal anti-inflammatory drugs (NSAIDs) and opioids in pain relief for extracorporeal shock wave lithotripsy (SWL) powered by an electromagnetic generator. Data from 3 trials (244 patients) were pooled. The primary outcome measure was adequate analgesia, defined as "if no additional pain relief was used". The difference in the proportion of patients with adequate anesthesia was compared between the NSAIDs and opioids groups as an odds ratio and

odds ratio were pooled across the 3 trials with a fixed effects model. It was found no statistically significant difference between using NSAIDs and opioids for pain relief during SWL using modern electromagnetic lithotripters. In conclusion, the analysis showed that in relieving pain during SWL using modern electromagnetic lithotripters NSAIDs are as effective as opioids. Dr Ayten Bilir, from Department of Anesthesiology & Reanimation, Osmangazi University Medical Faculty, Eskisehir, Turkey, commented on the paper.

Doctor Onal and colleagues, from Cerrahpasa School of Medicine, University of Istanbul, Turkey, assessed on page 326 the outcome of urologic evaluation in patients with voiding dysfunction due to multiple sclerosis (MS) and determined the relationship between urological and neurological parameters of these patients. They retrospectively reviewed the medical records of 249 patients (162 female and 87 male) with MS and with a median time of 4 years (range 3 months to 26 years) of MS onset. The authors concluded that the prevalence of mixed symptoms in patients with MS is higher than storage or voiding symptoms alone. Although detrusor overactivity and detrusor-sphincter dyssynergia were the most common urodynamic diagnoses, upper urinary tract deterioration was rarely found.

Doctor Sager and collaborators, from Hospital de Pediatria Dr. J.P. Garrahan, Buenos Aires, Argentina, assessed on page 315 the role of transforming growth factor-β1 (TGF-β1) in congenital ureteropelvic junction obstruction at diagnosis and during postoperative follow-up. They conducted a case-control study including 19 patients (mean age of 6.7 years). Urinary TGF-β1 and other markers were measured pre-, intra- and postoperatively. The authors found that the mean bladder urine TGF-β1 concentration in obstructed patients prior to pyeloplasty was higher than in controls and concluded that measurement of urinary TGF-β1 could become a useful tool for the diagnosis of obstructive hydronephrosis and the evaluation of the parenchyma function status, pre and postoperatively. Dr. Sarel Halachmi, from Technion Israeli Institute of Technology, Haifa, Israel, Dr. Osama M. Sarhan, from Mansoura University, Egypt, and Dr. Seth A. Alpert, from Nationwide Children's Hospital, Columbus, Ohio, USA, provided interesting editorial comments on this paper.



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