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Ankimtay Rutel, Shong HK, Mohd Mahamud Musman, Noraihan Ibrahim, Pan Shin Wei, Wan Hazmy Che Hon. Spinal injury. Hospital Practice in Seremban 2000; 6(1): 10-14

Spinal injury

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Abstract

Spinal injury can be a devastating injury that can lead to a major cause of morbidity and mortality. We have conducted a retrospective study on all spinal injured patients admitted into the adult orthopaedic ward, Seremban Hospital for a period of one year, from 1st January to the 31st December 1999 in order to identify the epidemiology, the type of fractures and the outcome of the injuries. One hundred and eleven patients were included in this study. It was found that spinal injury mainly involved the male gender (84%) and patients less than 30 years of age (47%). The two major causes were road traffic accident (58%) and falls (36%). The commonly affected spinal levels were the lumbar spine (34%) followed by the thoracolumbar (29%) and the cervical spine (22%). The commonest type of fracture were the wedge compression (45%) and the burst fracture (18%). Neurological deficits were present in 27% of the patients, out of which, a quarter showed improvement in the Frankel's scale. We identify that the factors at risk for spinal injuries are male gender, age less than 30 and road traffic accident. Comprehensive preventive steps, legislative measurement and efficient post trauma management are critical factors in reducing the mortality and morbidity related to this injury.

Key words: Spinal injuri, epidemiology, outcome

Fozi K, Teng CL, Krishnan R, Shajahan Y. A study of clinical questions in primary care. Med J Malaysia 2000; 55(4): 486-492

A study of clinical questions in primary care

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Abstract

This is a prospective study of clinical questions generated in primary care consultations and a comparison of two approaches to answering those clinical questions. Twenty-one doctors in a university based primary care clinic submitted 78 clinical questions arising from patient consultations during 24 clinic days (0.01 questions per patient encounter). These doctors subsequently found answers to 40% of their questions but were satisfied with only 67% of these answers. The investigators were able to provide answers for 95% of the questions asked and the doctors rated these answers as satisfactory in 86% of instances. Answers obtained by investigators had significantly higher satisfaction score than those obtained by doctors' search ($p=0.002$). The two main findings of this study are (1) almost all questions arising in clinic setting could be answered by intensive search; (2) answers found by intensive searches were judged to be more satisfactory than those found routinely by doctors. Provisions of an information retrieval service in addition to training in the searching and appraisal of medical literature are possible solutions to the information needs of busy clinicians.

Key words: Clinical questions, Searching, Primary care

Lau Yean Chin, Eric Soh Boon Swee, Subramaniam R. The incidence of clinical deep vein thrombo-embolism in low risk women undergoing elective caesarean section. *Mal J Obstet Gynecol* 2000; 6(2) Suppl: 8-13

The incidence of clinical deep vein thrombo-embolism in low risk women undergoing elective caesarean section

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Abstract

Pregnancy and Caesarean section are independent risk factors for the development of deep vein thrombosis (DVT). This study aims to determine the incidence of DVT in low risk women undergoing elective Caesarean section. 100 women were recruited into this study. Duplex Doppler Ultrasound with colour flow imaging of the popliteal and femoral veins were done bilaterally before the scheduled Caesarean sections, and on the third and seventh day post-operatively. None of the women studied developed DVT after their Caesarean sections. We concluded that the incidence of DVT in this category of women is low (<1%) and routine DVT prophylaxis is unnecessary at this juncture.

Key words: Deep vein thrombosis (DVT), anti-thrombotic prophylaxis

Lee LN, Lim PKC, Navaratnam V, Mak JW. Evaluation of murine immune responses elicited by a plasmid encoding the *Toxoplasma gondii* SAG1 gene delivered by various routes. *Inter Med Res J* 2000; 4(2): 103-110

Evaluation of murine immune responses elicited by a plasmid encoding the *Toxoplasma gondii* SAG1 gene delivered by various routes

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Abstract

The efficacy of four methods of delivering recombinant plasmid DNA into a Balb/C mouse model was evaluated. A recombinant plasmid vector, pCMV-wtp30 was developed which allowed for expression of p30 antigen in mammalian cells. Delivery of this plasmid by intramuscular injection of unconjugated DNA, topical application of unconjugated DNA, topical application of liposomal complexed DNA and intra-peritoneal injection of liposomal complexed DNA were evaluated for their ability to stimulate the cellular and humoral immune responses of their subjects. ELISA studies suggest that none of the methods successfully induced a strong, sustained antibody response against the p30 antigen. Lymphocyte proliferation assays were performed to measure the cellular response. The results indicate that topical application of unconjugated DNA produced the strongest and most consistent cellular response while delivery of liposomal complexed DNA by either route could not efficiently raise cellular responses. Challenge studies, in which the immunized mice were inoculated with 100 live *Toxoplasma* tachyzoites, demonstrated that immunization with the unconjugated plasmid via the topical route could confer partial protection even in the absence of an antibody response.

Key words: DNA immunization, *Toxoplasma gondii* p30 antigen, delivery routes

Ong CE, Bhasker CR, Birkett DJ, Miners JO. The xenobiotic inhibitory specificity of cytochrome P450C8. *British J Clin Pharmacol* 2000; 50: 573-580

The xenobiotic inhibitor profile of cytochrome P450C8

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Abstract

Aims:

To investigate inhibition of recombinant CYP2C8 by: (i) prototypic CYP isoform selective inhibitors (ii) imidazole/triazole antifungal agents (known inhibitors of CYP), and (iii) certain CYP3A substrates (given the apparent overlapping substrate specificity of CYP2C8 and CYP3A).

Methods:

YP2C8 and NADPH-cytochrome P450 oxidoreductase were coex-pressed in *Spodoptera frugiperda* (Sf21) cells using the baculovirus expression system. CYP isoform selective inhibitors, imidazole/triazole antifungal agents and CYP3A substrates were screened for their inhibitory effects on CYP2C8-catalysed toremide tolylmethylhydroxylation and, where appropriate, the kinetics of inhibition were characterized. The conversion of toremide to its tolylmethylhydroxy metabolite was measured using an h.p.l.c. procedure.

Results:

At concentrations of the CYP inhibitor 'probes' employed for isoform selectivity, only diethyldithiocarbamate and ketoconazole inhibited CYP2C8 by >10%. Ketoconazole, at an added concentration of 10 mM, inhibited CYP2C8 by 89%. Another imidazole, clotrimazole, also potently inhibited CYP2C8. Ketoconazole and clotrimazole were both noncompetitive inhibitors of CYP2C8 with apparent K_i values of 2.5 mM. The CYP3A substrates amitriptyline, quinine, terfenadine and triazolam caused near complete inhibition (82±91% of control activity) of CYP2C8 at concentrations five-fold higher than the known CYP3A K_m . Kinetic studies with selected CYP3A substrates demonstrated that most inhibited CYP2C8 noncompetitively. Apparent K_i values for midazolam, quinine, terfenadine and triazolam ranged from 5 to 25 mM.

Conclusion:

Inhibition of CYP2C8 occurred at concentrations of ketoconazole and diethyldithiocarbamate normally employed for selective inhibition of CYP3A and CYP2E1, respectively. Some CYP3A substrates have the capacity to inhibit CYP2C8 activity and this may have implications for inhibitory drug interactions in vivo.

Key words: cytochrome P450, CYP2C8, cytochrome P450 inhibitors, drug interactions

Phua KL. HMOs and managed care in Malaysia: what can we anticipate from the experience of Singapore and the United States?. Buletin Kesihatan Masyarakat 2000; Isu Khas: 167-175

HMOs and managed care in Malaysia: what can we anticipate from the experience of Singapore and the United States?

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Abstract

Managed Care Organisations (MCOs) are now part of the Malaysian medical landscape. Its proponents believe that it will shift the emphasis of medicine back to preventive and primary care, increase efficiency as well as control costs. Its detractors believe that, among other things, it will result in deterioration of quality of care. This paper discusses the experience of Singapore and the United States with managed care. It is noted that managed care has not taken off in Singapore. However, managed care is the dominant mode of organisation of healthcare services in the United States. Factors likely to affect the growth of managed care in Malaysia are discussed. Whatever its future here, useful innovations from managed care such as clinical practice guidelines, use of formularies and generic drugs etc. can possibly be adopted for Malaysia. Nevertheless, there is a need for proper regulation of Malaysian MCOs.

SC Gun, T Thayaparan, Das Gupta E. Adult onset henoch schonlein purpura. Hospital Practice Seremban 2000; 6(2); 83-86

Adult onset henoch schonlein purpura

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Abstract

A young adult female with adult onset Henoch-Schonlein purpura presented with the typical tetrad of acute onset of multiple joint pain and swelling, abdominal pain, purpuric rash over her lower limbs and proteinuria with microscopic hematuria. She developed renal impairment and the biopsy specimens of the kidney and the skin lesions revealed IgA deposition. She responded well to corticosteroid treatment.

Key words: Henoch-Schonlein purpura, Ig A Nephropathy, Arthritis