

## P21 CLINICAL AND LABORATORY STUDY OF CHRONIC MYELOID LEUKAEMIA IN IRAQI KURDISTAN

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**Background:** Chronic myeloid leukaemia (CML) is a clonal haematopoietic stem-cell disorder. It was the first malignancy found to be associated with a recurring chromosomal abnormality, Philadelphia chromosome, resulting from translocation of genetic material from one chromosome to another to form a fusion gene (BCR/ABL). CML was the first disease in which the fusion gene was recognised as giving rise to an abnormal fusion protein, fundamental in the pathogenesis of the disease. It is now the first disorder for which a therapeutic agent, imatinib mesylate (Glivec), has been designed to specifically target the molecular defect, with potential for cure.

**Methods:** This descriptive study was done at Nanakaly and Hiwa hospitals in Erbil and Sulaimaniya, Iraq, from December 1, 2008, to June 30, 2009. A total of 100 patients with CML were randomly selected. Clinical examination and laboratory investigations were done for all patients. Results were subjected to the international Sokal scoring system and compared with other studies.

**Findings:** The mean age of the study group was  $42.8 \pm 13.23$  years (range 15–87). The male-to-female ratio was 1:1.08. The most common symptoms at onset were fatigue, weight loss, and abdominal fullness. At presentation, the mean white-cell count was  $164,000/\mu\text{L}$ , and the mean percentage of blast cells was 3% in peripheral blood and 4% in marrow. Presence of the Philadelphia chromosome and BCR/ABL gene was available for 18 cases and was positive for all. According to the International Sokal Scoring System, patients were divided into three groups: group A patients with good prognosis (91%), group B with moderate prognosis (7%), and group C with poor prognosis (2%).

**Interpretation:** The mean age at presentation for CML in this study was lower than in developed countries. Significant prognostic indicators were platelet count, and peripheral and marrow blast-cell percentage; a high count and high percentages were associated with poor prognosis.

**Funding:** Ministry of Health of Kurdistan.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.022

## P22 OLFACTORY NEUROBLASTOMA – RAMATHIBODI HOSPITAL EXPERIENCE

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**Background:** Olfactory neuroblastoma, also known as esthesioneuroblastoma, is a rare malignant tumour of the nasal cavity. Diagnosis can be difficult and the disease can mimic other types of sinonasal tract tumours. There has been only one case report of this disease in Thai patients.

**Methods:** Olfactory neuroblastoma patients who were treated at Ramathibodi Hospital from January, 2000, to October, 2010, were identified and reviewed.

**Findings:** Nine patients' medical records were reviewed; six (66.7%) of the patients were male. Median age was 53 years (range 30–68) with peak incidence of olfactory neuroblastoma in the sixth decade. The mean duration of symptoms prior to diagnosis was 6.8 months (2–24). The most common presenting symptoms were nasal obstruction (55%) and orbital symptoms (44%). 66% of patients had Kadish stage C disease and the rest had stage B. One-third of patients had nodal metastases initially, and all had locally advanced disease. Four patients were initially misdiagnosed as having undifferentiated or poorly differentiated carcinoma. Surgery was done upfront in seven patients; five underwent postoperative radiotherapy. Chemotherapy as primary treatment was given to two patients. With a median follow-up of 42 months (5–115), the median overall survival of Kadish B patients was significantly longer than Kadish C patients (not reached vs. 12.3 months, respectively;  $p = 0.04$ ). None of patients with initial nodal metastases survived longer than 13 months.

**Interpretation:** A high index of suspicion, especially in nasal cavity tumours, and proper immunohistochemistry are essential in the diagnosis of olfactory neuroblastoma. Kadish staging is useful as a prognostic factor. Patients who presented with nodal metastasis had very poor prognosis. A multidisciplinary team approach may improve treatment outcome.

**Funding:** None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.023

## P23 MANAGEMENT OF PATIENTS WITH NEGATIVE HEPATITIS B SURFACE ANTIGEN AND POSITIVE ANTI-HEPATITIS B CORE ANTIBODY UNDERGOING CHEMOTHERAPY FOR MALIGNANT LYMPHOMA

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**Background:** A substantial proportion of patients with negative hepatitis B surface antigen (HBsAg) and positive anti-hepatitis B core antibody (anti-HBcAb) have acute hepatitis after chemotherapy.

**Methods:** Patients with negative HBsAg and positive anti-HBcAb undergoing intensive chemotherapy for malignant lymphoma were recruited from 2007 to 2009. Hepatitis B virus DNA was checked every 4 weeks during chemotherapy and every 8 weeks after completion of chemotherapy, for 1 year.

**Findings:** 20 patients were recruited. 13 patients had diffuse large B-cell lymphoma. Three patients had Burkitt or Burkitt-like lymphoma. Two patients had T-cell lymphoma and two had another histological type. Mean age was 69 years (range 44–86). Seven patients had stage I–II disease and 13 patients had stage III–IV disease. Two patients died of primary refractory disease in less than 1 year, without evidence of acute hepatitis. Three patients who had a flare-up of acute hepatitis B were successfully identified, and all recovered after anti-viral treatment, without development of liver failure.

**Interpretation:** 16.6% of lymphoma patients with negative HBsAg and positive anti-HBcAb had a flare-up of hepatitis B after chemotherapy. Monitoring of hepatitis-B virus DNA every 4 weeks

during chemotherapy and 8-weekly after chemotherapy successfully identified all cases of acute hepatitis B.

**Funding:** GlaxoSmithKline provided the funding for monitoring of hepatitis B virus DNA.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.024

#### P24 SINGLE INSTITUTION EXPERIENCE OF ODONTOGENIC CYST AND TUMOURS, AND TUMOUR-LIKE LESIONS OF THE JAW, IN SOUTH KERALA – A 10-YEAR CLINICOPATHOLOGICAL SURVEY

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**Background:** This study aimed to evaluate and compare the relative frequency, distribution, sites of presentation, and radiological and histological variations of odontogenic cysts, tumours, and tumour-like lesions in cases reported to the Government Dental College, Trivandrum, India.

**Methods:** A retrospective analysis was done on 3222 biopsy cases reported to the Department of Oral Medicine and Radiology from January, 2000, to May, 2009. Biopsy records were also evaluated from the Department of Oral Medicine and Department of Oral Pathology and Microbiology.

**Findings:** Of 3222 biopsy cases reported, 1082 were diagnosed as odontogenic cysts and tumours, and tumour-like lesions of the jaw. Of the 1082 cases, the highest frequencies were as follows: cyst of inflammatory origin (periapical and radicular cyst;  $n = 589$ , 54.4%); ameloblastoma ( $n = 141$ , 13.03%); dentigerous cyst ( $n = 98$ , 9.05%); keratinising odontogenic tumour ( $n = 74$ , 6%); fibrous dysplasia ( $n = 25$ , 2%; females = 19, 75%; males = 6, 24%); dentigerous cyst showing ameloblastoma transformation ( $n = 24$ , 2%); eruption cyst ( $n = 55$ , 5%); osteoma ( $n = 22$ , 2%); central ossifying fibroma ( $n = 20$ , 1.8%; females = 13, 65%; males = 7, 35%); odontome ( $n = 16$ , 1.4%); adenomatoid odontogenic tumour ( $n = 6$ , 0.5%); central giant-cell granuloma ( $n = 9$ , 0.8%); central odontogenic fibroma ( $n = 6$ , 0.5%); cementoblastoma ( $n = 8$ , 0.8%); Pindborg tumour ( $n = 5$ , 0.4%); and benign fibrous histiocytoma ( $n = 3$ , 0.2%). Rarer conditions, which accounted for less than 0.2% of cases, were juvenile ossifying fibroma, ameloblastic fibrodontoma, chondrosarcoma, central odontogenic myxoma, and plasma-cell myeloma.

**Interpretation:** The relative frequencies and sites of presentation of odontogenic cysts, tumours, and tumour-like lesions of the jaw in different geographic backgrounds are essential for early diagnosis and management of these potentially destructive benign lesions.

**Funding:** None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.025

#### P25 IMPACT OF CONTRIBUTION BY ONCOLOGY PHARMACISTS ON LYMPHOMA WARD ROUNDS

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**Background:** In the oncology setting, specialist multidisciplinary teams are often needed to ensure that patients receive the best possible care and treatment. As drug experts, pharmacists manage chemotherapy-related and supportive care issues. They can also help to manage treatment costs and facilitate accurate prescribing to maximise patient safety. Documentation of interventions done by pharmacists on ward rounds can be clinically and educationally useful for improving prescribing safety and pharmacy services. This study evaluated the impact of interventions made by pharmacists on lymphoma ward rounds.

**Methods:** This was a cross-sectional analysis of interventions made by pharmacists on the lymphoma service from 2009 to 2010, at Singapore General Hospital, where pharmacists from the National Cancer Centre Singapore join lymphoma ward rounds 5 days a week. Interventions were documented in a database and were given an impact rating by two independent reviewers – a lymphoma oncologist and an oncology pharmacist. Interventions were classified into four impact levels and assessed as drug-related, cost-related, or workflow issues. Spearman's correlation test was used to test for agreement between the two reviewers.

**Findings:** A total of 295 interventions were made for 116 patients; 97% were accepted by oncologists. Most interventions were related to antimicrobial dosing or usage (35%) and chemotherapy-related issues (29%). 23% of impact ratings were level 3 or 4. Ratings of interventions that helped to avoid or solve drug-related problems and improve workflow were moderately concordant between the two reviewers, in the areas of supportive care ( $p = 0.544$ ) and chemotherapy-related issues ( $p = 0.559$ ). Overall, the oncologist gave higher ratings for cost-saving interventions and the pharmacist gave higher ratings for interventions that help to avoid or resolve drug-related problems and improve workflow.

**Interpretation:** Interventions by oncology pharmacists are well-accepted on ward rounds and have a positive effect on patient care.

**Funding:** None.

The authors declared no conflicts of interest.

doi:10.1016/j.ejcsup.2011.02.026

#### P26 EXPRESSION OF MAGE-A3 AND ITS PROGNOSTIC VALUE IN HEPATOCELLULAR CARCINOMA IN ASIAN PATIENTS

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**Background:** The MAGE-A3 tumour-specific antigen is expressed by many tumours, including hepatocellular carcinoma (HCC), and is therefore an appropriate target for active immunotherapy. Here, we report results from a retrospective epidemiological evaluation of MAGE-A3 gene expression in Asian patients with pathologically proven HCC, and its prognostic value.

**Methods:** 200 samples were analysed from two centres in Thailand and one in Taiwan. Patient and tumour characteristics were also collected. Formalin-fixed paraffin-embedded (FFPE) tumour