

Abstracts of Papers Presented At The 159th Research Meeting of The Medical Research Centre of Bombay Hospital Trust on Monday 09th June 2008 Convener Dr. HL Dhar

1. Role of whole body ¹⁸F-FDG PET-CT scans in lymphoma patients for evaluation of treatment response as the prognostic indicator after the conclusion of front line therapy

Atul Marwah, Sunita Tarsarya, Ruchira Marwah, Vinay Ghadge, Rajnath Jaiswar, P Salvi, Mehjaben

Introduction : Cancer imaging by PET using FDG is based on the observation that most cancers including lymphoma metabolize glucose at an abnormally high rate. The purpose of this prospective study was to assess the role of whole body ¹⁸F-FDG PET scans in lymphoma for evaluation of treatment response as the prognostic indicator after the conclusion of front line therapy.

Material : ¹⁸F-FDG PET whole body scans performed in our institution for patients with histopathologically proven Hodgkin's lymphoma (HL) or Non-Hodgkin's lymphoma (NHL). Total 47 patients of lymphoma (25 HL, 22 NHL) with 30 males (mean age of 32 ± 10 years) and 17 females (mean age of 29 ± 11 years) patients with mean age of 40 ± 12 years from January, 2007 till date were included in the prospective study. Thirty-eight of 47 patients had only nodal disease, whereas 9 had extra nodal disease. All whole body ¹⁸F-FDG coincidence PET scans were performed using Millennium VG discovery VH dual head coincidence gamma camera. Non-diagnostic CT 10 mm slice thickness (140 kv, 2.5 mA) was used for attenuation correction and lesion localization only.

Methods : Patients fasted for minimum of 4 hours before intravenous administration of ¹⁸F-FDG injection. Blood glucose levels of all the patients were < 200 mg/dl. Each patient was intravenously injected 9-12 mCi of ¹⁸F-FDG. All patients were made comfortable in a quiet room during 45-60 min uptake phase. The coincidence PET-CT images obtained were reconstructed in transaxial, coronal and sagittal planes. These images were coregistered to obtain fusion (anatomicalphysiological) images. All patients underwent a baseline PET-CT scan (pre-chemotherapy) and follow up PET-CT scan (post-chemotherapy). Follow up scan was performed 4 weeks to 5 months after completion of last cycle of chemotherapy.

Results : Both the ¹⁸F-FDG PET-CT studies were analyzed qualitatively by visual analysis only and compared for any change in number, size and FDG avidity of lesions. Complete response was seen in 33 (19HL, 14 NHL) patients. Partial response was seen in 12 (6HL, 6NHL) and no improvement was seen in 2 (NHL) patients. There was good correlation between PET-CT findings with clinical assessment in all patients. All 14 patients with partial or no improvement underwent more aggressive therapy. Seven of these 14 patients revealed clinical response in follow up scan.

Conclusion : ¹⁸F-FDG PET-CT scan plays an important role in assessment of response to treatment. It is a strong predictor of residual/recurrent disease in patients with high grade lymphoma and may substantially influence the treatment planning.

2. Ozone disc nucleolysis – Bombay Hospital experience

Tushar Pagar, Shard Ghatage, DB Modi

We report our experience between March 2007 and April 2008 with 355 patients affected by neck or

lowerback pain or sciatica due to herniated disc treated by intradiscal and transforaminal periganglionic oxygen-ozone injection.

There were 175 males and 180 females with age ranging from 17 to 84 years. All patients were clinically assessed. This was followed by MRI in sagittal and transverse axes with T1W and T2W images. Whenever in doubt EMG, NCV and SSEP were conducted to ascertain about level of disc involvement. All patients of which 20 cervical and 335 lumbar intervertebral disc prolapse were diagnosed on clinicoradiological examination.

Success rate at the end of one month was 90% which went on to become 85% at the end of 6 months showing in 355 patients followed up to one to six months. No side effects were recorded at short and long term follow-ups.

Ozone disc nucleoplasty is effective mode of treatment for the patients of prolapsed intervertebral disc presented with unbearable root pain without neurological deficit.

3. Trans abdominal ultrasound guided embryo reduction : a report of 3 cases of embryo reduction in multifoetal pregnancy

D Choudhary, K Jobanputra, P Kapoor

Background : Widespread use of assisted reproductive technique has lead to exponential increase in prevalence of multifoetal pregnancy with its associated complications. However even naturally occurring lower order pregnancies may be potentially harmful in certain situations. We hereby present a report of 3 cases of trans abdominal ultrasound guided selective embryo reduction performed in the first trimester.

Material and Methods : Trans abdominal ultrasound guided selective embryo reduction was performed in 3 females with multifoetal pregnancies under guidance on PHILIPS HD 11. EXE using curvilinear probe (2-5 MHZ) and 1 ml KCl (4mOsm/ml) was injected into foetal thorax through percutaneously passed spinal needle (20G). Successful reduction was confirmed by recording absence of foetal heart activity immediately post procedure and follow up scan within 72 hrs.

Conclusion : When indicated trans abdominal ultrasound guided selective embryo reduction in late first trimester is a safe method of management of multifoetal pregnancies for foreseeing and overcoming the potential complications associated with them.

Abstracts of Papers Presented At The 161st Research Meeting of The Medical Research Centre of Bombay Hospital Trust on Monday 11th August 2008 Convener Dr. HL Dhar

1. Persistent pulmonary hypertension of the newborn – Case report

Muznah Kapdi, Prem Sheth

PPHN is a neonatal condition characterized by persistence of pulmonary hypertension which in turn causes a varying degree of cyanosis from a right to left shunt through a patent ductus arteriosus or patent foramen ovale. PPHN should be routinely considered in evaluating the cyanotic newborn. The infant with PPHN constitutes a medical emergency in which immediate and appropriate intervention is critical to reverse hypoxaemia, improve pulmonary and systemic perfusion and minimize hypoxic ischaemic end

organ injury. Although mechanism of antenatal pathogenesis remains unclear, there are a number of perinatal and neonatal conditions with established links with PPHN. Here we report a case of PPHN of a post term IUGR baby born with meconium aspiration syndrome and having tricuspid regurgitation and patent foramen ovale.

2. Liver abscess in an infant

Vaishakhi Turakhia, Rahul Verma

1 ½ month old female child 1st born of nonconsanguineous marriage brought with complaints of vomiting since 1 day. Abdominal distension with periumbilical redness since 1 day.

3 days back 1 episode of vomiting in supine position, became breathless and rushed to near by hospital where she had 1 episode of coffee brown coloured vomitus. She was tachypnoeic, tachycardiac, febrile with respiratory distress in the form of grunting. Hence baby was kept nil by mouth. Started on iv fluids and iv antibiotics. Transferred to Bombay Hospital for further management.

Baby started on iv Fortum/Amikacin/Metrogyl. Ryles tube put, tube kept open. Rantac and vit K given. CXR and Abdo Xray taken. Gradually liver started increasing in size and became 4 cm palpable and tenderness+ in Rt hypochondriac region; periumbilical redness disappeared. Breast feeding started and Ultrasonography showed an abscess 3 cms in diameter in the right lobe of the liver with hepatomegaly. Baby accepted feeds well. No vomiting. Liver 4 cm spleen 2 cm. A repeat sonography after 14 days showed marked regression in the size of the abscess which had become 1.5 cms in diameter.

General condition of baby improved, accepted feeds well except hepatosplenomegaly. Baby was discharged on IV antibiotics for 21 days after which USG was repeated which showed an abscess measuring 0.3 cms in diameter; hepatosplenomegaly disappeared.

3. Study to determine the early predictors and to evaluate the drugs used in enteric fever in paediatric age group in a tertiary care Hospital

D Jain, VN Tibrewala

Introduction : Enteric fever (EF), caused by Salmonella typhi, S. paratyphi A and B is a major cause of morbidity in children and young adults. Various tests to diagnose EF like blood culture, clot culture and Widal test are available. However, they are either expensive or not positive in the early phase of the disease. On the other hand, a simple clinical examination supplemented by routine blood count can help in timely suspicion. Younger the child, more dreaded the complications-hence the importance of early diagnosis and management to forestall the progression of the disease. Ever since the introduction of Chloramphenicol, a multitude of drugs with varied efficacies have been used in the management of EF. It is of paramount importance to identify and treat EF with the appropriate therapy at the right time. Hence we propose to carry out this study.

Aims and Objectives : To determine the predictive value of routine blood count as an adjunct to clinical findings in the diagnosis of EF. To compare the efficacies of Cotrimoxazole with IIIrd generation Cephalosporins in the treatment of EF.

Methods and Materials : 150 patients (110 boys, 40 girls) ranging from 6 months of age to 17 yrs formed the study population. Presence of clinical findings in form of fever with coated tongue, tumid abdomen and hepatosplenomegaly were specifically looked for and recorded. Complete blood count, Bactec plus blood culture, Widal test were performed on every patient. Results thus obtained were

systematically recorded and analysed using appropriate statistical tests of significance.

Results : Classic clinical findings were found in 110/150 (73.3%) patients on admission, pulse rate 80-100 in 26 (17.33%), 100-120 in 96 (64%), 120-140 in 21 (14%), 140-160 in 8 (5.33%) patients. CBC showed evidence of Total Leucocyte Count (TLC) in normal range (4,000-10,900) for all patients. Differential count (DC) showed evidence of neutrophil count 30-40% in 8 (5.33%), 40-50% in 15 (10%), 50-60% in 56 (37.2%), 60-70% in 48 (32%), 70-80% in 23 (15.3%) patients. Eosinopenia of less than 4% was seen in all patients. 124 (82.66%) patients were started on Cotrimoxazole of which 118 patients responded in an average of 7 days. No major side effects were observed. Rest 6 had to be shifted on to Ceftriaxone in view of no response. 26 (17.24%) patients were treated with 3rd generation cephalosporins.

Conclusion : Clinical findings with classical complete blood counts correlated well with blood culture reports. Thus a thorough clinical examination with supportive blood counts can be a major guide to initiating early therapy. Cotrimoxazole was found to be effective in treatment of typhoid fever in 95.16% patients treated with it without any major side effects with the added benefit of lower cost.

4. Laparoscopic dissection followed by vaginal hysterectomy in severe endometriosis

Fariza Shabadi, PB Paidhungat, Nitin Paidhungat, Asha Singhal

It is a study of 10 cases of symptomatic severe endometriosis diagnosed clinically and confirmed on laparoscopy. Laparoscopic dissection of the endometriotic adhesions done under vision. The magnification of laparoscopy was a major advantage to notice the haemosiderin deposits as well as the fibrotic deposits and adhesions.

Adhesiolysis done with monopolar and bipolar cautery, hydrodissection, scissors and blunt dissection and last but not the least is the use of ultrasonic energy with harmonic scalpel. The use of harmonic scalpel has made surgery bloodless and better visualization assisted.

We studied the post operative recovery, post of pain scores and duration of stay of these patients.

5. Interesting Case Reports of Primary Amenorrhoea – Case 1

Nimisha Pandya, Asha Singhal

Case Report 1: History – 21 yrs old unmarried girl, was referred as a case of Primary amenorrhoea.

On Examination : Height = 151 cm, Wt. 42 kg, BMI 17.48

Vitals normal, No cardiac murmur, No organomegaly

No e/o hirsutism, Thyroid swelling.

Secondary sexual characters : Breast : Tanner Stage I, pubic and axillary hair sparse at first visit 2 years back.

No e/o widespread nipples, webbing of neck, hyperextensibility of joints

No galactorrhoea

Local examination showed no e/o clitoromegaly, external genitalia normal, hymen intact. Per rectal examination revealed small knob-like structure in midline.

Management

Cyclical oestrogen and progesterone for withdrawal every month. January 2008-USG revealed normal uterus 66 x 48 x 37 mm, Endometrial thickness 8 mm Rt. ovary 20 x 15 mm and Lt. ovary 21 x 20 mm.

Now breast well developed, well developed pubic and axillary hair.

Patient is getting married soon. Further plan for managing fertility by Ovum donation and IVF Support pregnancy with hormones till 12 weeks.

6. A Case of Primary Amenorrhoea- Case 2

Punam Chowdhary, SK Desai, Asha Singhal

Case Report

A 32 year old female, house wife, married for 3 years presented with complains of primary infertility.

No history of menarche on its own.

Patient is on some oral medication since 16 yrs of age and is getting regular withdrawal bleeding.

H/O hypothyroidism since four months, on tablet Eltroxin 50 µg daily.

No h/o similar complains in any maternal siblings

Patient was undergoing treatment in MP and was put on AKT by her doctor since four months. (reports not available with patient)

No history of any major surgical illness in the past

On Examination : Normal build, average height female

Breast : Normal development, Tanner Stage 5, pubic and axillary hair normal

No galactorrhoea

Local examination showed no e/o clitoromegaly, external genitalia normal

P/S Cervix nulliparous, p/v uterus normal size, anteverted, fornices free

Course in Hospital : Patient was taken for diagnostic laparoscopy

Laparoscopy findings : Uterus normal size, bilateral tubes normal in length and contour, bilateral streak ovaries present, MBT – Bilateral fallopian tubes are patent. POD clear. D and C done – scanty endometrium.

Impression : streak gonads.

Management Plan : Karyotyping of the patient – Gonadectomy in case of presence of Y component.

Fertility Management : Pregnancy with donor Oocyte and IVF. Support pregnancy with hormones till 12 weeks.

7. Retrospective analysis of breech deliveries at tertiary health care centre

Mamta S Katakdhond, Sangeeta Aggarwal, Nitin Paidhungat

Breech delivery has always been a challenge to the obstetricians. There is always a controversy regarding the delivery of babies with breech presentation.

We, at Bombay Hospital, which is a tertiary health care centre, analysed the birth records of past 1 ½ year and studied the outcome of babies with breech presentations delivered vaginally as well as by caesarean section.

Conclusion : Small family norms, increased incidences of infertility, availability of competent NICU and medicolegal liabilities on the part of the obstetricians have led to increased incidences of caesarean sections for breech presentations but with a good outcome.