United Hospital Quarterly Newsletter

reflection

Issue-4 | Quarter-4, 2013

Editors Note

All of you are aware that "reflection" started with the idea that the staff of United Hospital will have a forum where all the great and small happenings taking place, professional or personal, will be shared within the fraternity.

Accordingly we shared the clinical articles and non-clinical write ups, proudly announced the various initiatives being taken, informed about businesses and corporate agreements, observation of international days like World Cancer Day, Nurses Day, World Kidney Day etc. We also informed you about collaboration agreements with other educational institutions as well as working together with regulatory bodies to propagate the upgradation of new technologies in the country.

The most awaited moments are the yearly picnics, sports and awards. The staff information section allows us to share the feelings with great pleasure when we get the news of the new borns, newlyweds and heartfelt condolences for those family members whose dear ones depart this world.

All this has been possible because of your contributions and creative articles making deadlines fly by. There have been times when we cajoled/ pushed you to provide contributions, there are few who spontaneously & jovially came forward with articles and others with anguish inquired why their articles were not published. There is also the team effort of the reflection associates who despite their own assigned responsibilities went two steps ahead to bring out the quarterly publications on time.

At the end of 2013 we feel confident that we will be able to continue our efforts with your support. We take this opportunity to express our profound appreciation and thank everyone who has contributed and we look forward to participation from all of you to enrich "reflection" in the coming year 2014.

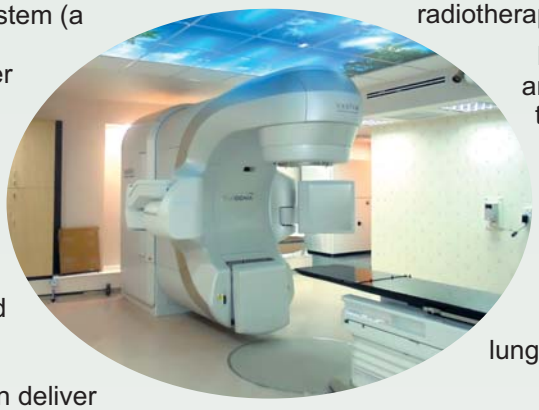
TrueBeam

The Latest Technology for Cancer Radiation Treatment

Dr Ashim Kumar Sengupta

As a comprehensive World Class Cancer Center, United Hospital has recently added, in addition to the existing Linear Accelerator, the latest technology for cancer treatment – ***The TrueBeam System.***

The TrueBeam system (a radically different approach to cancer treatment) integrates and synchronizes performance of imaging and treatment technology, allowing faster and more precise image-guided radiotherapy. It can deliver higher doses of radiation with increased accuracy, empowering the equipment to narrowly target tumors and avoid the surrounding healthy tissues and organs.



It can generate high-quality 3-D images of the tumor and surrounding anatomy, 60% faster than was possible with previous generations and using 25% less X-ray dose. These images help fine-tune a patient's position and pinpoint tumor motion during a treatment, enabling improved accuracy when targeting the tumor.

It can be used for many forms of advanced treatment techniques including image-guided radiotherapy (IGRT), intensity-modulated radiotherapy (IMRT) and RapidArc radiotherapy technology.

It gives oncologists and multidisciplinary teams the power to manage challenging cancers with unparalleled ease and precision anywhere in the body, including the lung, abdomen, breast, head and neck.

Its speed means shorter treatment times, which leads to less interruption of patients' daily lives.

It is designed with patient ease and comfort in mind with sophisticated technology to ensure constant patient-therapist interaction.

It offers treatment options for patients who otherwise may not have been candidates for traditional radiotherapy, and offers physicians more options for treating complex cancer cases.

Ribbon Cutting to Inaugurate "TrueBeam" Linear Accelerator

From right H.E. Mr. Shiro Sadoshima, Ambassador of Japan, Bangladesh, Major General Mohd. Habibur Rahman Khan, ndc, psc, Executive Chairman, BEPZA , Mr. Hasan Mahmood Raja, Chairman, United Group and Mr. Faridur Rahman Khan, Managing Director, United Hospital.

A 57 year old Lady Presenting with Acute Kidney Injury with History of Fracture Pelvis

Dr Mosabbir Akhter, Dr Md Omar Faisal, Dr Moushumi Marium Sultana, Dr Kazi Shihab Uddin, Dr Md Mainuddin, Prof Nurul Islam

In this article, we report a 57 year old, diabetic (1 year) and hypertensive (7 years) lady who presented with recurrent episodes of vomiting for 10 days, frothy urine and urinary incontinence for 7 days. She gave a history of traumatic fracture of pelvis 1 month prior to these symptoms and was taking NSAID for pain. She had constipation as well. On examination, her vital signs were stable and hypertension controlled by medication. She was anaemic with mild peripheral oedema. Other systemic examination revealed normal findings apart from low back tenderness. Our initial diagnosis was NSAID induced AKI, Hypercalcemia with UTI. Baseline investigation revealed moderate anaemia (7gm%), high ESR (99 mm in 1st hour) and mild proteinuria in urine R/E. Renal function tests revealed S creatinine- 8mg/dl, Blood urea-96 mg/dl, eGFR-5.16 ml/min/1.73 m2. She had hypercalcemia with low albumin level, urine NGAL was 2.5 fold higher than normal limit. Urine for C/S, X-ray skull, CXR, X-ray pelvis, serum protein elctrophoresis and bone marrow aspiration were done that very first day of admission because Multiple Myeloma was also suspected. There were multiple lytic and expansile lesions in the skull, left 3rd rib, right hip bone (ischium and ramus with old fracture). Serum protein electrophoresis report suggested IgG variety of Multiple myeloma. Serum total protein was 115 gm/L (NR 65-85 gm/L), serum IgG-17785 (NR 700-1600), serum IgA-24 (NR 40-100) and β2 microglobulin level was 40.77 (NR .97-2.64). There was no Bence-Jones protein in urine. In the meantime hypercalcemia was managed and she was dealt accordingly with anti-diabetic, antihypertensive and antibiotics medication. She received 2 separate sessions of haemodialysis along with albumin infusion and was transfused 3 units of whole blood. Urine C/S showed moderate growth of β haemolytic streptococcus with good range of sensitivity. Bone marrow examination report revealed plenty of atypical plasma cells (98% of total marrow cell) favouring the diagnosis of multiple myeloma. We consulted with Haematology department and she was diagnosed with Multiple Myeloma of high risk group according to International Staging System (ISS). She was prescribed Bortezomib based combination chemotherapy along with Thalidomide and Dexamethasone. Gradually patient's renal function came back to normal and she responded well to treatment. In this case Multiple Myeloma is the primary disease which was complicated by fracture pelvis, NSAID induced AKI, Hypercalcemia and UTI.

Bilateral Hypoplastic Internal Carotid

Dr Jan Mohammad

Agenesis and hypoplasia of the internal carotid artery (ICA) are rare congenital anomalies, occurring in less than 0.01% of the population. They are more often unilateral. Bilateral ICA agenesis or hypoplasia is even rarer. Of the slightly more than 100 cases of ICA agenesis or hypoplasia reported, only around 20 were bilateral. Many of these patients are asymptomatic due to good collateral circulation and the anomaly may be detected only incidentally. We report a case of bilateral ICA hypoplasia in a 64 year old gentleman. The patient was admitted in another hospital where Doppler study of neck vessels were performed and reported as moderate to significant stenosis in both ICAs. He was further investigated with CT Angiogram of neck vessels at United Hospital. CT angiogram revealed bilateral hypoplastic ICAs. The common carotid artery (CCA), the proximal 1cm of ICA, and the external carotid artery (ECA) were normal bilaterally. The cervical and intracranial part of ICAs on both sides were visualized as thin streaks.Right anterior circulation was well developed and supplied by the basilar artery through dilated right PCA.

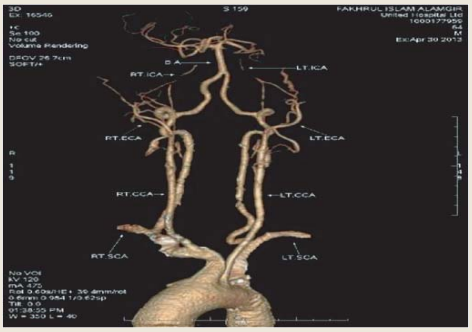


Fig: CT Angiogram of neck vessels shows Bilateral Hypoplastic Internal Carotid Arteries.

The left anterior circulation was poor as there was no left posterior communicating artery and hypoplastic A1 segment of right ACA. The exact cause of this developmental anomaly is not known. A small or an absent carotid canal indicates the congenital nature of the pathology. ICA hypoplasia has to be distinguished from acquired stenosis as the management of the two conditions is different.

Airport Emergency Exercise 2013

On 1 December 2013 United Hospital participated in "Airport Emergency Exercise 2013" at Hazrat Shahjalal International Airport. The theme for this year's exercise was to rescue passenger from an aircraft with 110 passengers which crashed on the Airport runway.

More than 26 government and non government agencies including Military, Police, Fire Services and different Hospitals took part in the exercise. From United Hospital a team of 6 members led by Dr. Rishad Choudhury Robin took part in the exercise.

A case of Myeloproliferative Disorder

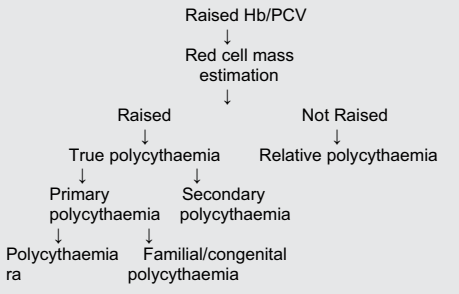
Dr S Hossain, Dr M R H Masum, Prof Brig Gen (retd) Z Mahmud, Prof K A R Sayeed

Case history: Mr. MMK, a 60 year old male from Chittagong was admitted on 20th August, 2013 with the complaints of central chest pain and shortness of breath for the last two months. The pain was intermittent, sharp and localized, and was relieved by rest and sublingual GTN. He also complained of generalized weakness after physical exertion. He had a history of hospitalization with acute MI on 7th May, 2013. He was on antihypertensive and hypoglycaemia medication. General and systemic examination revealed no significant abnormality.

The patient was then investigated thoroughly. CBC report showed raised total RBC, WBC and Platelet counts and low red cell indices. PBF was suggestive of polycythemia with iron deficiency. Bone marrow was suggestive of myeloproliferative disorder. Serum iron profile confirmed iron deficiency. Molecular studies of marrow aspirate using PCR revealed JAK2 V617F mutation. It was negative for BCR/ABL mutation. Fasting blood sugar was raised. ECG showed OMI anterior and angiogram confirmed single vessel disease. Results of liver and renal function tests, coagulation profile, fasting lipid profile, troponin I, echocardiogram, serum erythropoietin, serum vitamin B12, serum uric acid, urine R/E, stool for OBT, CXR, USG of abdomen were all normal.

History, general and systemic examination and laboratory investigation findings led to the final diagnosis of Polycythemia Vera with iron deficiency with single vessel disease with preexisting HTN and DM. The patient was treated with Hydroxyurea and iron.

Flow Chart: Approach to a patient with raised Hb/PCV



Polycythaemia vera (also called primary polycythaemia, primary proliferative polycythaemia, polycythaemia rubra vera) is a clonal stem cell disorder characterized by hyperplasia of all three haemopoietic cell lineages. Erythropoiesis is autonomous and is independent of the concentration of erythropoietin. Precise molecular defect is unknown. JAK2 V617F mutation is considered to be responsible for uncontrolled red cell proliferation.

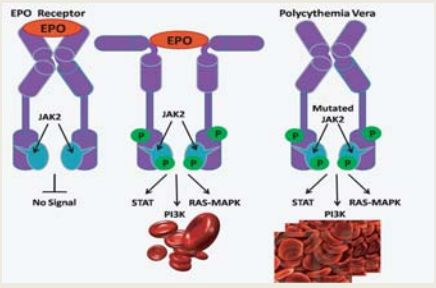


Fig: Role of JAK2 mutation in PV.

Patients with polycythaemia vera present with pruritus, plethora, thrombo-embolic complications, gout, CNS symptoms and splenomegaly. 25-30% are asymptomatic at diagnosis.

Diagnostic criteria (polycythaemia vera study group, 2000).

A1: Raised red cell mass (PCV >60% in males, >56% in females)

A2: Normal aPO2 and no elevation of serum EPO.

A3: Palpable splenomegaly.

A4: Acquired mutation in haemopoietic cells, like JAK2.

B1: Thrombocytosis.

B2: Neutrophil leucocytosis.

B3: Ultrasonological splenomegaly.

B4: Low serum EPO.

Presence of A1+A2+ another A or another two B criteria makes a diagnosis of PV.

Patient is given drug therapy with Hydroxyurea if thrombocytosis is present.

In absence of thrombocytosis blood letting is done with target PCV of 45%.

Prognosis: PV has a relatively benign natural history. With adequate treatment the life expectancy is 11-20 years. Polycythaemia vera is a very slowly progressive clonal stem cell disorder which can be managed effectively for many years.

Dental Implant-Your 2nd Permanent Tooth

Dr Md Nazrul Islam, Dr Lutfun Nahar

Missing or lost teeth is nothing to laugh about as it can change your smile forever. When a tooth is lost, its opposite tooth becomes inactive as it requires two opposite teeth to bite. So loosing teeth doesn't only change your smile but it also compromises your functionality as well. But now we can bring back missing teeth with dental implants. Dental Implants are small titanium screws that allow bone to grow in and around it. They are inserted in the jaw bone to mimic the teeth root, and in due time an artificial teeth is attached with it to replace the missing teeth. When the treatment is finished, the new teeth on implant looks and works just like a natural tooth. For patients who have no teeth, with the help of implants, we can restore full functional set of teeth for them.

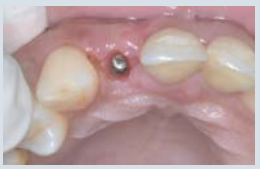


Fig 1

Fig 2

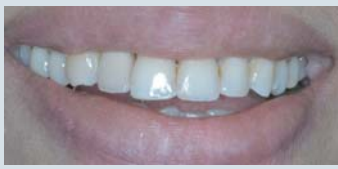


Fig 3

Fig 1- Implant is placed at the missing tooth site
Fig 2- X-ray after 5 month showing good osteointegration
Fig 3- Artificial tooth on the implant

The functionality and appearance of implant supported tooth is as good as any natural tooth. So if you have any missing tooth, dental implants can be your 2nd permanent tooth.

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Congratulations & Best Wishes to the following Staff and their Spouses:

New Baby

- Staff Nurse Abanti Bairagi of 6th Floor Oncology Ward had a baby girl, Audhara Shrestha Authoy on 28 September 2013.
- Staff Nurse Joba Rani Hajong of Neuro O.T. had a baby girl, Kamalini on 28 September 2013.
- Staff Nurse Bonya Nokreka of OPD 4 Cardiac Surgery had a baby girl, Jasana on 6 October 2013.
- Unit Supervisor Nurse Shima Biswas of 4th Floor had a baby boy, Sammow Mazumder on 7 November 2013.

We Congratulate the Newly Weds on the Auspicious Occasion of their Marriage

- Staff Nurse Tajmira Mostari of 3rd Floor got married to Sharif Tuhin on 17 October 2013.
- Billing Officer Md. Rubel Hossain of Finance & Accounts department got married to Mahmuda Akter Shumi on 8 November 2013.
- Staff Nurse Nahida Akter of 3rd Floor got married to Md. Sanowar Hossain on 15 November 2013.
- Staff Nurse Momota Ekka of 3rd Floor got married to Badal Adhikari on 15 November 2013

Death of a Colleague

We mourn the sudden, tragic death of one of our fellow colleagues, 25 year old Md. Sohel Rana, Waiter F&B Department. He passed away on 15th October 2013-may his soul rest in eternal peace. We extend our deepest sympathy, prayers and condolence for his family.

Condolence & Prayers

- Staff Nurse Khadija-tul-Cobra of 3rd Floor lost her father Mr. Kasir Uddin on 1 November 2013.
- Customer Relations Officer Taslima Akhter & Medical Records Assistant Mareyam lost their father Mr. Md. Shamsuzzuha on 13 November 2013.
- Patient Care Attendant Arafat Khan of Nursing Dept. lost his father Mr. Atiar Rahman Khan on 15 November 2013.
- Customer Relations Officer Abdul Malak lost his father Mr. Abdul Latif on 18 November 2013.

Mother Teresa Gold Medal 2013

Prof. Dr. Santanu Chaudhuri, presently working as Director, Oncology Center and Consultant Clinical Oncology at United Hospital receiving the Mother Teresa Gold Medal 2013, awarded by World Human Rights Council on 9 November 2013 for his contribution in the field of cancer, from Mr. Jainul Abedin, former Justice.

Bangladesh Bank Recognises Selfless Work

Mr. Tarek Hasan, Staff Nurse of United Hospital received an Appreciation Certificate and token money from Dr. Atiur Rahman, Governor Bangladesh Bank on 9 November 2013 in a ceremony arranged by Bangladesh Bank. The function was organised to recognise the dedicated service of general people in rescuing people from the building, attend to the wounds and saving lives in Rana Plaza incident at Savar.

Inter Department Badminton Tournament December 2013

The Inter Departmental Badminton Tournament December 2013 was inaugurated by Mr. Najmul Hasan, Chief Executive Officer of United Hospital on Thursday 28 November 2013. The preliminary knockout matches of this year's tournament started with the participation of 100 players under four groups, representing different departments. The tournament format comprised of four categories. Teams were divided according to their age i.e (i) under 40, (ii) between 40 and 50, and (iii) above 50. In addition we also had an exclusive format for female participants. Our Chief Guest Mr. Faridur Rahman Khan, Managing Director of United Hospital was present to watch the final games and distribute prizes amongst the winner's, Runner-Up's & other officials on Sunday 15 December 2013.

The winners of the tournament were:

Group Ka (under 40): Mr. Amdad Ali & Mr. Md. Shafiullah,

Group Kha (40 and 50): Dr. A.M. Shafique & Dr. Ashim Kumar Sengupta,

Group Ga (above 50): Mr. Md. Mujibur Rahman & Dr. Mahboob Rahman Khan

Female Group: Ms. Umme Salma & Ms. Fouzia Kuddus