

A COMPARISON BETWEEN LATERAL FLOW CHROMATOGRAPHIC IMMUNOASSAY AND BLOOD CULTURE TO DIAGNOSE TYPHOID FEVER IN SUSPECTED CASES WITH FEVER

Sofia Andalib¹, MBBS FCPS; **Rumana Alim**², MBBS MPhil; **Shaila Munwar**³, MBBS DTMH MSc; **Nasreen Huda**⁴, MBBS MPhil; **SM Biswas**⁵, MBBS MPhil

ABSTRACT

Background: Typhoid fever is a blood stream infection caused by *Salmonella typhi*, and one of the commonest febrile illness in developing countries. Isolation of *Salmonella typhi* from bone marrow, blood, urine or stool is the most reliable diagnostic method for confirming typhoid. The required laboratory equipment and skills are limited in many developing countries. Many serological tests have been developed as alternative diagnostic tools. In this study we report the results from using one such serological test. **Materials and methods:** Blood for culture and serological tests was collected from 100 suspected cases of typhoid fever in a hospital in 2013. Typhoid IgM and IgG was tested by lateral flow chromatographic immunoassay and compared with blood culture results. **Results:** Out of 100 blood culture samples, organisms were isolated from 10(10%), 4 of which were *S typhi*. A total of 11 (11%) of the samples were positive for either *S typhi* IgM or IgG antibodies using lateral flow chromatographic immunoassay (ICT). Of the 4 *S Typhi* blood culture positive samples, 3 samples were positive result for *S Typhi* ICT. ICT had a sensitivity of 75% and specificity of 92%, compared with blood culture as the gold standard. The PPV of ICT was only 27%. **Conclusions:** Our hospital-based study showed lateral flow chromatographic immunoassay had reasonably high sensitivity in confirming *S Typhi* infection compared with blood culture, and fairly high specificity. However, the positive predictive value was low, result in almost a 4-fold over diagnosis of *S Typhi*. We recommend using blood culture for confirming diagnosis and only revert to alternatives like ICT when blood culture is not possible.

ANTI HBC (TOTAL) POSITIVITY AMONG BLOOD DONORS IN MCWH AND THE CONSIDERATION OF THIS SEROMARKER AS A SCREENING TEST IN BLOOD BANKS

Shaila Munwar¹, MBBS DTMH MSc; Sofia Andalib², MBBS FCPS; Rumana Alim³, MBBS MPhil

ABSTRACT

Background: Transfusion associated Hepatitis B infection has become a burning issue. Test for HBV surface antigen (HBsAg) is carried out routinely to detect hepatitis B Infection in all blood banks. However this does not rule out the risk of transmission of HBV totally. The donor may be a case of Occult hepatitis B infection (OBI). OBI is manifested by presence of very low levels (≤ 200 IU/ml) of Hepatitis B viral DNA (HBV DNA) in the blood and the liver while exhibiting undetectable HBV surface antigen (HBsAg). Again surface antigen may be negative in 'Window Period'. It is well documented that transfusion of blood from a donor who is in the window period may lead to post transfusion hepatitis B. In both these cases the Anti HBc Total will be positive. **Aim of Study:** The aim of this study was to screen blood donors of MCWH for anti HBc total (where IgM and IgG are both detected), in other words to identify potentially dangerous cases, as we know Anti HBc IgM is positive in Window period and IgG is positive for all other cases of past infection, few of which maybe OBI. **Method:** 184 healthy donors were selected at MCWH and 5 came out positive for HBsAg 32 positive for Anti HBc (Total) by ELISA. **Conclusion:** A large proportion of the donors who donated blood in our hospital were positive for Anti HBc (Total), which reflects the scenario of our country. Though most of the cases may be safe still a chance remains that these donors maybe in window period or be cases of OBI, rendering the blood to be potentially dangerous.

COMPARISON OF MEDICAL AND SURGICAL TERMINATION OF PREGNANCY UP TO 63 DAYS OF GESTATION

Akter Jahan¹, MBBS MS; MA Chowdhury², MBBS DGO MCPS; Sufia Sultana³, MBBS DGO FCPS;
DK Bhowmik⁴, MBBS DGO FCPS

ABSTRACT

Background: Surgical method, manual vacuum aspiration (MVA) is being employed increasingly in the developing countries as termination of early pregnancy. Recently medical regimen, mifepristone-misoprostal is used for early termination of pregnancy. **Objective:** To compare medical and surgical methods of termination of pregnancy up to 63 days of gestation. **Materials and Methods:** This cross sectional comparative study was conducted in the department of obstetrics and gynecology, Sylhet MAG Osmani Medical College Hospital, from July 2013 to June 2015. Two hundred pregnant women up to 63 days of gestation desiring for termination of pregnancy were selected and were divided by their choice into group-A (medical method, 200mg mifepristone orally and 800µgm misoprostol buccally after 24 hours) and group-B (MVA under paracervical block with Ipas MVA system). **Results:** Success rate was 95% in medical method and 96% in surgical method ($p>0.05$), surgical evacuation was needed in 5% patients in group-A and 4% patients in group - B ($p>0.05$). Bleeding was none or mild (6%), moderate (72%) and severe (22.0%) in medical method compared to surgical method was 11%, 75% and 14% respectively ($p>0.05$). The recorded adverse effects such as nausea ($p<0.01$), vomiting ($p<0.01$), diarrhoea ($p<0.01$), hyperpyrexia ($p<0.01$), and shivering ($p<0.01$), were significantly higher in group-A than that of group-B but abdominal cramp ($p>0.05$), did not differ significantly between two groups. **Conclusion:** Medical method is safe and equally effective compared to surgical method of termination pregnancy up to 63 days of gestation.

IMMUNOASSAY-BASED BIOMARKERS AS COMPANION DIAGNOSTICS IN PERSONALISED HEALTH CARE

ASM Giasuddin¹, MSc PhD; **KA Jhuma²**, MBBS MPhil MS; **AMM Haq³**, MBBS DTM&H MPhil FRCP FCPS

ABSTRACT

Personalized health care (PHC) aims at providing the right therapy to the right patient at the right time and PHC is an evolving field of medicine. The use of PHC enables treatment strategies to be tailored to individual patients through identification of the optimal drug and dosage, thereby potentially improving the benefit-risk ratio of treatment decision. This approach often incorporates the use of companion diagnostics (CDx) that provide information essential for the safe and effective use of the corresponding drug. In this regard, immunoassay-based biomarkers can provide a significant contribution to the evaluation of CDx in patient management. In this annotation, we discussed how the incorporation of biomarker immunoassays into routine diagnostic testing may allow early and definitive detection of Alzheimer's disease. In addition, we discussed how biomarker-based CDx immunoassays have potential utility for stratifying patients with asthma for their response to treatment. Development of accurate and reliable CDx may ensure that PHC becomes the future standard for many clinical conditions.

TUBAL MOLAR PREGNANCY – A CASE REPORT

Shilpi Shaha¹, MBBS FCPS; **Rabeya Khanom²**, MBBS MS; **Kakali Shaha³**, MBBS FCPS MS;
Soheli Nargis⁴, MBBS FCPS

ABSTRACT

The incidence of hydatiform mole is 1 per 1000 pregnancies. The occurrence of hydatidiform mole in ruptured tubal pregnancy is very rare. We report an unusual case of molar pregnancy in the right fallopian tube which presented as an adnexal mass. A 25 years old second gravida presented with irregular pervaginal bleeding for 7 weeks with moderate to severe lower abdominal pain. On clinical examination, she had moderate anaemia, pulse was 90 per minute and blood pressure was 110/70 mm of Hg. On per abdominal examination, there was tenderness in her lower abdomen more on the right side. On per vaginal examination, a tender mass was felt through the posterior fornix. Pelvic ultrasound revealed an irregular echogenic mass in the right adnexa, serum β hCG was 2405 mIU/ml, leading to a diagnosis of ectopic pregnancy. Emergency laparotomy was done: it revealed right fallopian tube was adherent to posterior surface of the uterus, having a complex mass extending to pouch of Douglas from its fimbriated end. The histologic test of that mass identified an ectopic molar pregnancy. The patient was followed with weekly quantitative β -hCG titers until three successive levels were negative. It is important that clinicians should routinely send histological examination of tubal specimens in ectopic pregnancy in order to diagnose cases of ectopic molar pregnancy and provide appropriate post treatment follow up.

GOSSYPIBOMA: A CASE REPORT AND REVIEW OF THE LITERATURE

MAM Chowdhury¹, MBBS MCPS FCPS; **Mahbuba Begum²**, MBBS FCPS; **MR Alam³**, MBBS FCPS;
M Nuruzzaman⁴, MBBS FCPS; **MI Alam⁵**, MBBS MS; **Tasnim Hossain⁶**, MBBS;
MA Hashem Bhuiya⁷, MBBS FCPS FRCS

ABSTRACT

Gossypiboma, textiloma or more broadly retained foreign object (RFO) is the technical term for a surgical complications resulting from foreign materials, such as surgical sponge, accidentally left inside a patient's body¹. The term "gossypiboma" is derived from the latin word gossypium ("cotton wool, cotton") and the suffix-oma meaning a tumour or growth, and describes a mass within a patient's body comprising a cotton matrix surrounded by a foreign body granuloma². "Textiloma" is derived from textile (surgical sponges have historically been made of cloth), and is used in place of gossypiboma due to the increasing use of synthetic materials in place of cotton². Foreign bodies forgotten in the abdomen include towels, artery forceps pieces of broken instruments or irrigation sets and rubber tubes. The most common surgically RFO is the laparotomy sponge. The complications caused by these foreign bodies are well known, but cases are rarely published because of medico legal implications. The implications for the patient and the surgeon are grave. The purpose of this presentation is to rekindle awareness of the phenomenon of gossypiboma, highlight the implications and stress prevention. RFB should be in the differential diagnosis of any post-operative patient who presents with pain, vomiting, infection or palpable abdominal mass.