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ACCEPTED ABSTRACTS

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PROGNOSTIC FACTORS FOR SURGICAL OUTCOME AND SURVIVAL IN WOMEN TREATED FOR BORDERLINE OVARIAN TUMORS

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Data of 92 patients diagnosed with Borderline Ovarian Tumors (BOTs) during the period from 2010 to 2017 in the National Cancer Institute (NCI), Cairo University, Egypt were retrospectively evaluated median follow up period was 42 months. The mean age at diagnosis was 42.7 years. Histopathology was serous in 63%, mucinous in 28.3% and endometrioid in 3.3%. 65 patients (70.7%) had stage 1A disease, 17 patients had stage 1B disease (18.5%), 4 patients had stage 1C disease (4.3%), 2 patients had stage 2 disease (2.2%) and 4 patients had stage 3 disease (4.3%) at diagnosis. 49 patients (53.3%) underwent fertility sparing surgery, of which 19 patients underwent unilateral ovarian cystectomy, 5 patients underwent bilateral ovarian cystectomy, 25 underwent unilateral salpingo-oopherectomy. 43 patients (46.7%) underwent radical surgery including hysterectomy, bilateral salpingo-oopherectomy. 39 patients had micropapillary disease (42%) and 2 patients had micro invasive disease (2.2%) on histopathology. 6 patients (6.5%) had peritoneal implants of which one was invasive and five were non-invasive. Recurrence rate in the entire study group was 18.5%, 17.6% among patients underwent radical surgery and 82.4% among patients underwent fertility sparing surgery. 12 of the recurrences (70.6%) were borderline whereas 5 were invasive (29.4%). Stages 1A and 1B had significantly higher disease-free survival than other stages. Patients with micro invasion had significantly lower free disease-free survival 10.5 (9.52–11.5) vs 77.6 (70.9–84.1). Radical surgery had significantly higher FDS than fertility sparing surgery 75.8 (70.2–81.4) vs 68.5 (58.2–78.8).

Note:

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IMPACT OF BLOOD TRANSFUSION ON HEMATOPOIETIC STEM CELL TRANSPLANTATION OUTCOME

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Background: Allogeneic hematopoietic stem cell transplantation (AHSCT) is a potentially curative therapy for many malignant and non-malignant disorders.

Objectives: The aim of author's single centre retrospective study was to investigate the impact of blood transfusion on the outcome of AHSCT.

Patients & Methods: A total of 50 adults patients with haematological malignancies received allogeneic bone marrow transplantation were analysed, regarding the incidence of infection, acute and chronic GvHD and overall survival, for three months before to one year after AHSCT. The patients were divided into two groups according to the amount of transfused RBCS and platelets units. The low transfusion group (<10 units, n=30) and high transfusion group (>10unites, n=20).

Results: The incidence of infectious episodes and GvHD development were significantly higher among the high transfusion group than that in low transfusion group (p=0.006) and (p=0.02) respectively. In the low transfusion group the incidence of a GvHD was 3.3% and of the chronic GvHD was 3.3% while in high transfusion group the incidence of a GvHD was 15% and of chronic GvHD was 20%. Regarding the overall survival though during the first year the overall survival was significantly lower in the high transfusion group 25% than that in the low transfusion group 46.7% (p=0.02) however the difference between the two groups was not significant (p=0.09) during the median survival time (Two years).

Conclusion: These data indicate that higher transfusion history was associated with increased risk of infection, development of GvHD and worse overall survival in patients received AHSCT, thus new rational for improving transfusion practice for such patients is warranted based on symptoms driven criteria.

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COMPARISON OF ORAL RECOMBINANT ERYTHROPOIETIN AND SUBCUTANEOUS RECOMBINANT ERYTHROPOIETIN IN PREVENTION OF ANAEMIA OF PREMATURITY

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Background: Premature neonates are at risk for severe anaemia and erythropoietin is the most important hormone in erythropoiesis.

Aim of the Study: The aim of this study was to evaluate the influence of oral recombinant human erythropoietin (rhEPO) in proving erythropoiesis in neonates.

Methods: This was a randomized clinical trial study. Thirty neonates were enrolled from September 2007 to September 2008. The first group received oral rhEPO and Fe and the second, subcutaneous rhEPO and Fe. The patient's Hb, HCT and the need to blood transfusion were recorded. Author's included all infants with gestational age 85%, FiO2 of 30%), full feeding tolerance so that oral Fe can be administrated.

Results: In first group (oral=PO), 65% of neonates were female and 35% were male, mean weight was 1140g and mean GA was 32.6 weeks. In the second group (subcutaneous=SC), 42% were female and 58% were male. The mean weight was 1245g and mean GA was 31.2 weeks and this was not statistically significant. In the first group, the mean Hb and HCT were 9.7±1.9 and 29.6±5.9 g/dl. In the second group, the figures were 12.5±1.7 and 38.8±5.1 which were statistically significant. There was no difference in the weight gain between two groups. In the first group, 3 neonates (20%) and in the second one, 1 neonate (15%) needed blood transfusion.

Conclusions: rhEPO administration either PO or SC could prevent anaemia of prematurity but SC route was more effective.

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EFFECT OF STEMREGENIN1 AND SB431542 SMALL MOLECULES ON EX VIVO EXPANSION OF UMBILICAL CORD BLOOD HEMATOPOIETIC STEM CELLS ON BIOCOMPATIBLE POLYETHER SULFONE NANOFIBER SCAFFOLDS

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Cord blood hematopoietic stem cells (HSCs) with several advantages including low chance of viral contamination and low rate of Graft versus host disease (GvHD) are appropriate candidate for vast medical applications such as transplantation. The main obstacle of cord blood HSCs is the low number cells. To improve ex vivo expansion of umbilical cord HSCs author introduced a new culture system. Isolated HSCs were seeded in three-dimensional (3D) on Polyethersulfone (PES) scaffolds and two-dimensional (2D) culture conditions and treated with SB431542 and Stemregenin1 (SR1) small molecules. On the fifth and tenth days the expanded cells in different groups were investigated for expression of specific markers by flow cytometry, expression of some stemness genes by qRT-PCR and colony formation by methocult medium. SR1 molecule significantly increased expansion of CD34+ cells while SB431542 induced more CD34+/38+ cells. Also SB431542 treated cells showed higher colony formation capacity. SR1 increased the expression of c-Myc, HOXB4 and SALL4 while SB431542 seemed to inhibit HOXB4 expression and increase SALL4.Together this study introduced a new ex vivo culture setting for further medical application of HSCs. Their data showed simultaneous use of these two small molecules can provide appropriate outcome for HSCs transplantation includes both of engraftment and repopulation.

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SCREENING OF B-GLOBIN GENE (HBB) FOR RARE MUTATIONS IN B-THALASSEMIA PATIENTS INCLUDED HAEMOGLOBIN S D-PUNJAB USING SANGER SEQUENCING

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Objective: β-thalassemia is an autosomal recessive disorder which results in the formation of abnormal haemoglobin due to a variety of different mutations found in the HBB gene. These mutations render patients incapable of producing correct form of haemoglobin. The aim of this study was to identify HBB gene mutations in β-thalassemic patients, not included in the common-mutation panel of ARMS PCR, by sequencing HBB coding, intronic and promoter.

Method: A total of 10 samples previously tested for HBB gene mutations by ARMS PCR common-panel (i.e. IVS 1-1, IVS 1-5, Codon 8/9, Codon 41/42 and 619bp deletion) were analyzed by Sanger sequencing. Two healthy subjects were included as negative controls. Genomic DNA was isolated and HBB gene was amplified. Column purified amplified products were utilized for bidirectional cycle sequencing (Big Dye Terminator, ABI, USA).

Results: In the present study, a total of 10 samples were analyzed. Four were males and six females. The Mean of the patients was three years. All patients were diagnosed as β-thalassemia major based on their family history, clinical and laboratory findings. On average, patients were receiving transfusions every second week. Seven rare mutations in HBB gene were detected including point mutations. The mutations spanned in the promoter region HBB:c.138C>A (-88 C>A), exon1 HBB:c.17_18delCT (Codon5 –CT), HBB:c.47G>A (Codon15 G>A), HBB:c.92G>C (Codon30 G>C), HBB:c.50A>C (CAP+1 A>C), exon2 HBB:c.118C>T (Codon39) and intron2 HBB:c.315+1G>A (IVS II-I G>A) and a heterozygous change at codon 6 (GAG—>GTG) and also a heterozygous mutation at codon 121 (GAA—>CAA) . All control subjects showed normal HBB gene sequence. In addition, a polymorphism T>C in codon3 at position HBB: c.59 was detected in majority of the patients and controls.

Conclusion: Although ARMS PCR is a fast and convenient method for detection of common mutations in the HBB gene, a small subset of patients may be missed because of rare mutations, which would require other means for diagnosis. Sanger sequencing is an accurate and robust technique to manage such patients.

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