-Aclinical and hematological study on pre deposited autologous blood transfusion and homologous blood transfusion in elective surgery

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Because there is still great risk associated with homologous blood transfusion, surgeons have going to use autologous blood transfusion,The use of homologous blood transfusion is associated with immunological reactions e.g. hemolytic reactions, alloimmunization, allergic reactions, febrile reactions, and others.Also, it's associated with the risk of transmission of infectious diseases as: AIDS; hepatitis B,C and a new virus named TTV.Besides the above, there is increased demand on blood and shortage of blood banks to save all requirements of blood.For all these reasons , surgeons have going to use autologous blood transfusion.Autologous blood transfusion is the collection of blood from the patient and re-infusing to him on need .There are 4 types of autologous blood transfusions which include: 1)Predeposited autologous blood transfusion.2)Isovolemic hemodilution . 3)Intraoperative salvage blood.4)Postoperative salvage blood.The most easier one and commonly used is the predeposited autologous blood transfusionThe aim of the work is to evaluate the predeposition of autologous blood preoperatively in elective surgery and clear its benefits compared with homologous blood transfusion.Study was done on 90 patients classified into 2 groups; the 1st group took their own blood (autotransfusion group) ,the other group took blood from donors (homotransfusion group . The 1st group included 41 patients while the 2" group included 49 patients .The patients of the 1s` group donated 1 bag of autologous blood every week up to 2 unites by the aid of 200 mg elemental iron orally taken in divided 3 doses /day.The Hb of the patients must be at least 11gm/d1 before every donation. 20 patients donated one unit while 21 patients donated 2 units. Males donated more than females, while female compensate for blood loss more than male. The mean Hb loss was 1.14 gm/dl/donation in males and was 1.06gm/d1/donation in females. After operation the mean Hb increase after operation up to 2 weeks postoperative was 0.76gm/d1 in group I and was 0.15gm/d1 in group II.The donation program was applied in many surgical cases included plastic surgery, cancer breast, hysterectomy, colorectal tumours, splenectomy not associated with anemia as in splenic cyst, cancer bladder and others .The donation process done safely without risks or important side effects in all cases and transfusion of the autologous blood done also without risky side effects. The homologous blood transfusion was done in the 2' group with side effects as 3 cases developed different immunological reactions.The rate of post operative infection was higher in group II, while the mean

period of wound healing was shorter in group I. The recurrenceof intestinal motility was faster in group I and the hospital staying was less in group I. No effect of autologous blood donation and transfusion on the B.T, C.T and renal or liver functions.So, the autologous blood donation is easy applicable technique for saving blood and avoiding hazards of homologous blood and also cost-effective .