Measurement of postpartum blood loss after normal vaginal delivery

Waleed Gamal Taha Mabrouk

The study:This prospective clinical study was done in the delivery ward in KAFR EL ZAYAT GENERAL HOSPITAL during the period between February and December 2009.Aim of the work:The study aimed to test an easy, costless and reasonably accurate method for estimation of PP blood loss after normal vaginal delivery by direct collection of lost blood in a graduated kidney-shaped basin and then its measurement in a calibrated jar, estimation of Hb concentration and HCT value before and after delivery, to measure any DROP in these parameters and to correlate these with amount of blood loss measured.Subjects:The study was conducted on 150 women in active labour who had spontaneous normal vaginal delivery. The third stage of labour was managed actively.Method:After delivery PP blood was collected in a graduated kidney-shaped basin for one hour, then remeasured into a calibrated measuring jar.Hb concentration and HCT value were measured before delivery and three days after delivery to see the effect of blood loss.Results:• The amount of blood loss measured after delivery in the graduated kidney-shaped basin ranged from 100cc to 650cc with a mean of 225.4 ± 90.16cc. In the measuring jar, the amount of blood loss ranged from 90cc to 600cc with a mean of 206.567 ± 85.826.The study assessed the accuracy of using a graduated kidney-shaped basin to measure PP blood loss after vaginal delivery, compared with measurement in a calibrated measuring jar. We found that there was a high level of correlation between the two methods when we used univariant regression analysis and Bland and Altman plot.• There was no statistically significant difference between mean of SBP, DBP and PR before and after delivery (table 3).• There was a statistically significant decrease in mean Hb concentration and in mean HCT value, measured three days after delivery, with increased amount of mean blood loss measured in the graduated kidney-shaped basin and in the measuring jar, one hour after delivery (tables 4,5).• There was a statistically significant increase in the amount of blood loss, in both the graduated kidney-shaped basin and in the measuring jar, with increased: gravidity, parity, fetal weight, placental weight and duration of the third stage of labour (table 9).CONCLUSION:● Collection of PP blood loss in a measuring container is more accurate in assessment of postpartum blood loss than visual assessment.● The use of a graduated kidney-shaped basin provided an easy, costless, painless, non time consuming and reasonably accurate clinical method that can be applied in any delivery place.● Decision of blood transfusion in this study is affected by several factor as amount of blood loss,

general condition, vital signs (↑ pulse, ↓ blood pressure) and postpartum Hb (7 gm/dl or less).RECOMMENDATIONS:● Proper assessment of PP blood loss after vaginal delivery is essential for early diagnosis and proper management of PPH.● Assessment of PP blood loss, clinical examination, vital signs monitoring and measurement of laboratory parameters such as; Hb concentration and HCT value are important in the overall assessment of PPH.