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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.

Note: