
Abstract:
Objective: To determine whether platelet infusion time affects platelet counts in thrombocytopenic newborns.
Study Design: This was a prospective randomized control study of 43 platelet transfusions given to newborns. Transfusions were randomized to run over either 30 min or 2 h. Platelet counts taken 30 min and 6 h after transfusion were compared using parametric, nonparametric, Pearson’s correlation and logistic regression.
Result: Changes in platelet counts 30 min and 6 h after transfusion were not different between the groups. Weak but significant negative correlations existed between postmenstrual age and change in platelet count at 30 min (r=−0.33, P=0.04) and 6 h (r=−0.37, P=0.018) after transfusion. There were no differences between the mean blood pressures before and after transfusion in either group.
Conclusion: Transfusion duration does not affect post-transfusion platelet counts in newborns. Babies of lower postmenstrual age (PMA) may have better responses to platelet transfusions. Finally, platelet transfusions over both durations are well tolerated in neonates.

- Early intravenous iron administration reduces red blood cell transfusion
- Decreasing platelet administration safely and effectively
- Developments in artificial platelet and erythroid transfusion products