

INTRAVENOUS IMMUNOGLOBULIN G (IVIG) THERAPY VERSUS EXCHANGE TRANSFUSION FOR SEVERE NEONATAL HYPERBILIRUBINEMIA - AIC KIJABE HOSPITAL .

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INTRODUCTION

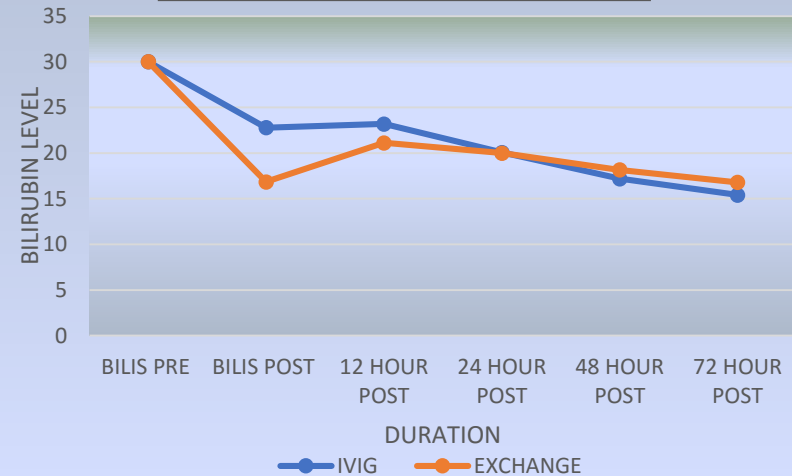
Neonatal jaundice is the second commonest reason for admission of neonates to our newborn unit.

The modalities of treatment at AIC Kijabe hospital include phototherapy for moderate hyperbilirubinemia while exchange transfusion and IVIG for severe hyperbilirubinemia. IVIG use in Kijabe was introduced in November 2016 and was initially tried on neonates with rebound hyperbilirubinemia post exchange transfusion. It was then adopted in December 2016 as a first line modality of management of severe hyperbilirubinemia with a total of 30 neonates receiving IVIG in 2016-2017. Several literature papers including Miqdad (2004) and Cortey(2014) showed its efficacy in reducing the need for exchange transfusion.

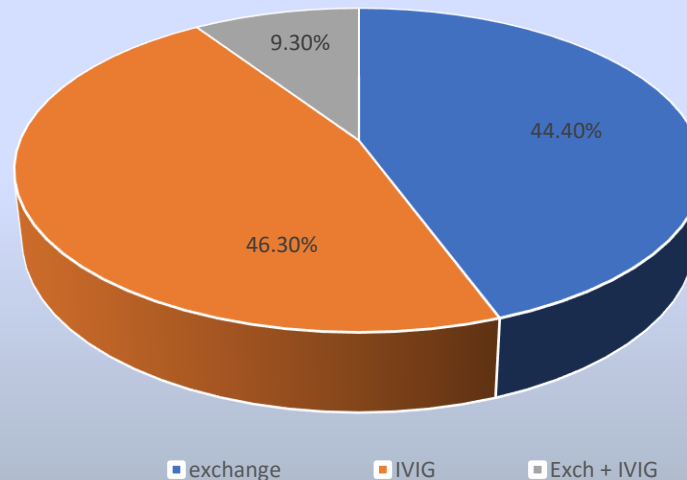
METHODS

We did a retrospective study of neonates who presented with severe hyperbilirubinemia and needed either exchange transfusion or IVIG in the four years 2014-2017. The files were then retrieved from the records and data was retrieved including demographic data, bilirubin at admission, change with phototherapy, post exchange and post IVIG at 12, 24, 48, and 72 hours since admission.

TRENDS IN BILIRUBIN LEVELS POST IVIG/EXCHANGE TRANSFUSION



TOTAL NUMBER OF IVIG/EXCH DONE 2014-2017 (%)



RESULTS

The rate of bilirubin drop was initially higher post exchange transfusion at 43.8% compared to post IVIG at 24.1%. Twelve hours later, the post exchange bilirubin rose by 25.3% compared to only 1.8% rise post IVIG. Between 24 to 72 hours, there was a higher bilirubin drop rate post IVIG compared to post exchange transfusion.

Only 8% of neonates had significant rebound hyperbilirubinemia post IVIG compared to 37.5% post exchange transfusion. Of the 30 neonates, 25 (83.3%) of them required just a single dose 2.5g(25mls) of IVIG while only 5 (16.7%) required a second dose of IVIG. The median hospital stay was 1.5 times longer and the median duration of phototherapy 1.7 times higher post exchange transfusion compared to post IVIG respectively.

CONCLUSION

Use of IVIG in severe hyperbilirubinemia caused faster drop in bilirubin levels and lowered the rate of rebound hyperbilirubinemia compared to exchange transfusion. The use of IVIG should be considered as a first line mode of treatment in severe hyperbilirubinemia.

REFERENCES

Cortey A. *et al*, (2014) Efficacy and safety of IVIG in the management of neonatal hyperbilirubinemia due to ABO incompatibility: a meta- analysis. PubMed. Vol 21(9) pp 976-983