SUMMARY AND CONCLUSION

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Oxytocin infusion during labour is not always safe for the mother nor her newborn infant. This was proven by many reports which described the occurrence of water intoxication and hyponatremia in mothers which were transmitted transplcentally to the fetus who may suffer after birth from apnoae, respiratory distress, cyanotic spells, convulsions and coma. **(Morgan et al.,1977) (Schwartz and Jones, 1978) (Dahlenburg et al., 1980) (Singhi et al., 1985) (Omigbodun et al., 1991).**

In our study we found that administration of oxytocin and glucose 5% by infusion method during labour in minimal doses (10 IU oxytocin and 500cc. glucose 5%) cause significant lowering in serum sodium levels in the mothers and in their newborn infants, while serum potassium and creatinine levels in mothers and in their newborn infants show no significant changes .

Also we found that serum urea levels in mothers and in their newborn infants were significantly lowered, although of no clinical significance, after administration of oxytocin and glucose 5% during labour.

On administrating oxytocia and normal saline instead of glucose 5% in minimal doses (10 IU oxytocin and 500 cc saline 0.9%) during labour , we found that serum sodium level is not affecteed neither in mothers nor in the newborn infants meaning that glucose 5% solution augments the hyponatremic effect of oxytocin while saline 0.9% prevents it.

Also we found that maternal and neonatal serum potassium, urea and creatinine levels are not affected by oxytocin and saline 0.9% infusion.

Lastly we conclude that caution should be exercised in prescribing intravenous therapy during labour and when intravenous fluid therapy is required during labour, the quantities used should be carefully calculated. We suggest that in the interest of neonatal well being, mothers receiving intravenous fluid and oxytocin should be carefully reviewed for further administration of fluid and oxytocin at each step especially after thee volume of infusion reaches 1 litre.

Maternal serum sodium levels should also be monitored as this reflects fetal levels very well and the volume and type of fluid infused must be regulated by these levels.

When oxytocin administration in doses higher than 5 – 10 IU is neeeded during labour and when more than 1 litre of vehicle solution is used, we recommend the use of normal saline instead of the usually used glucose 5%.

Infants of mothers who received oxytocin and glucose 5% during labour should be examined carefully immedietly after birth and re-examined after 24 hours, putting in mind the possibility of hyponatremia.

Midwives in our rural areas should be teached how to practice normal delivery, and we have to clarify to them the complications of the haphazard use of oxytocin and glucose 5% during labour on mothers and babies, so as to encourage them never to give oxytocin during labour.