Biodata of Dr Sandeep Rawal



Dr Sandeeep Rawal M.D(Paediatrics), Fellowship in Neonatology(IAP)

Presently Working as **Senior Consultant in Dept. of Neonatology & Paediatrics, Jaipur Golden Hospital, Delhi, India.**

He is **Incharge of Neonatal fellowship program** of the hospital run under the aegis of Indian Academy of Paediatrics and National Neonatology Forum

He is also a **faculty of Post graduate teaching program (DNB)** of National Board of Examinations under Ministry of Health, India.

He is a **National trainer of Advanced NRP course in India** and has conducted many workshops. He has been the faculty to many conferences and CMEs.

His interests include Pain management in NICU, Asepsis in NICU, KMC and Nutrition in preterms.

He has been guide to many post graduates dissertations in neonatology (Central lines and Nosocomial sepsis, Role of Probiotics in preventing NEC, Transcutaneous bilirubinometry, Late preterms, Kangaroo mother care)

He has many publications to his credit in esteemed journals of paediatrics and neonatology.

ABSTRACT.

Objective

To compare the analgesic effect of 25% dextrose and expressed breast milk in pain relief during heel lance in late preterm babies using Premature Infant Pain Profile (PIPP) score.

Study Design

Prospective, double blind, randomized controlled trial.

Setting

NICU of Jaipur Golden Hospital, Rohini, Delhi.

Participants

111 late preterm babies who required heel lancing for glycemic control and who were on oral feeds and hemodynamically stable

Methodology

The babies were randomized into two intervention groups (25% dextrose, EBM) and control group (sterile water). Two ml of test solution was given to baby 2 minutes before heel lancing. The facial response to pain (brow bulge, eye squeeze, nasolabial furrow) was analysed from the video. Maximum HR and minimum SpO2 were also recorded at 30 sec, 1 min, 1.5 min and 2.5 min after heel lancing by another camera.

Outcome variable

PIPP score, HR, SpO2 at 30 sec, 1 min, 1.5 min, 2.5 min after heel lancing.

Results

63 babies were considered for final analysis with 21 each in 25% Dextrose, EBM and Sterile water group. Mean PIPP score in 25% dextrose, EBM and control groups at 30 seconds were 4.52, 6.86 and 10.14 respectively ($p<0.001$). At 1min, PIPP score were 3.24, 5.14 and 8.24 ($p<0.001$). 25% dextrose gave better pain relief than EBM. Mean difference in PIPP score in 25% Dextrose and EBM groups was -2.34 and 1.9 at 30 sec and 1min respectively after the painful procedure. ($p=0.001$). Babies in intervention groups had less increase in HR and less decrease in Sp02.

Conclusions

25% Dextrose and EBM significantly reduces procedural pain in neonates though pain relief was better in 25% dextrose group as compared to EBM.

Key words: 25% dextrose, Expressed breast milk, Neonates, Heel lance, PIPP score.