To evaluate the safety of fentanyl in non-intubated infants undergoing peripherally inserted central catheter (PICC) placement" Kasirer et al (2018).

Abstract:

OBJECTIVE: To evaluate the safety of fentanyl in non-intubated infants undergoing peripherally inserted central catheter (PICC) placement.

METHODS: A retrospective chart review of PICC placements over a 3 years' period. We compared the 12h periods before and after fentanyl for clinically significant cardiorespiratory events (spells).

RESULTS: Of the 998 neonates screened, 258 were eligible. The mean standard deviation gestational age was 34.1 (4.3) weeks and the median (inter-quartile range) postnatal age was 4 (7, 11) days. The mean (standard deviation) fentanyl dose was 0.6 (0.2) µg/kg. Respiratory depression occurred only in two infants (prevalence rate = 0.78%, 95% CI (0, 1.85)). No cases of hypotension or chest wall rigidity occurred. There was no evidence of an increase in the number of infants with spells or in the number of spells per infant ($p = 0.34$ and $p = 0.06$, respectively).

CONCLUSION: Fentanyl appears to be associated with only a small risk of respiratory depression in non-intubated infants.

Reference:

Kasirer, Y., Shah, V., Yoon, E.W., Bromiker, R., Mcnair, C. and Taddio, A. (2018) Safety of fentanyl for peripherally inserted central catheter in non-intubated infants in the neonatal intensive care unit. Journal of Perinatology. May 8th. .

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