The aim of this study is to evaluate the use and safety of a sedation protocol with sevoflurane for short painful procedures in newborns” Gomez et al (2018).

Abstract:

OBJECTIVE: The aim of this study is to evaluate the use and safety of a sedation protocol with sevoflurane for short painful procedures in newborns.

STUDY DESIGN: This was a prospective and observational study conducted in a tertiary neonatal intensive care unit. Sevoflurane was recommended in patients undergoing an invasive procedure of short length, especially in those with spontaneous breathing or without venous access. Its safety and efficacy was assessed by continuous monitoring of respiratory and hemodynamic variables and clinical data recording.

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RESULTS: Sevoflurane was used for 39 procedures, the main indications were: intravitreal bevacizumab injection (12), central venous catheterization (11), and biopsy (6). The median
administration length was 14 minutes (range: 5-65 minutes). The median minimum dose was 1.5% (range: 1-3%). The median maximum dose was 2.5% (range: 1-6%). An effective control of nociceptive manifestations was achieved in 35 cases (90%). No major adverse effects were noticed. Main adverse effects were hypotension (8), desaturation (4), and apnea (3). All of them were solved by decreasing (14) or discontinuing (1) the administration of sevoflurane.

CONCLUSION: Sevoflurane is relatively easy to use and provides an optimal control of pain-related symptoms. Its prescription should be individualized and more long-term follow-up data are needed.

Reference: