2-Chloroprocaine for local perineal infiltration.

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Abstract

Lidocaine was recently found to rapidly cross the placenta and result in considerable fetal exposure after local infiltration of the perineum for episiotomy. For this reason, a more appropriate agent for local perineal infiltration might be a drug with rapid metabolism and inactive metabolites. 2-Chloroprocaine, an ester-linked local anesthetic agent, is available but is not commonly used for this procedure. The purpose of this study was to evaluate the placental transfer of 2-chloroprocaine after local perineal infiltration. The drug was administered to 17 normal term pregnant women for episiotomy. After local perineal infiltration, the levels of 2-chloroprocaine and/or its metabolite, chloroaminobenzoic acid, were quantitated in maternal and neonatal plasma or urine. The pharmacologic data indicated that 2-chloroprocaine was nondetectable at delivery in maternal and umbilical cord vein; one patient had trace levels in the cord. Chloroprocaine was not detectable in neonatal plasma, but chloroaminobenzoic acid was detectable in both maternal and cord vein plasma. Mean levels of chloroaminobenzoic acid in maternal plasma at delivery were 1.04 +/- 0.32 micrograms/ml, and mean levels in cord vein were 0.35 +/- 0.54 micrograms/ml. Clinically, 2-chloroprocaine provided good analgesia. These results indicate that very little, if any pharmacologically active drug, reaches the fetus after local perineal infiltration with 2-chloroprocaine. Therefore 2-chloroprocaine appears to be preferable to lidocaine when used for local perineal infiltration.