

Fetal transcutaneous Po₂ during paracervical block

Jacobs, R., Stålnacke, B., Lindberg, B., Rooth, G.

The recent finding by Baxi et al. (1) that fetal transcutaneous Po₂ fell in all cases given paracervical block appeared to be the final explanation to the frequent occurrence of fetal bradycardia after paracervical block. We felt it worth while to repeat the studies and obtained quite different results,

10 pregnant women at term and with spontaneous labour after uncomplicated pregnancies were given paracervical block. Three of the parturients needed a repeated injection. A total of 25 mg of bupivacain was injected in 10 ml divided in 4 portions. One injection of each 2.5 ml was given at the 2,4,8 and 10 o'clock positions. In all cases the analgetic effect was good.

Results: There was no drop in fetal transcutaneous Po₂ except in one case. One fetus showed a fall in tcPo₂ of 10 mm Hg (1.3 kPa) within 10 min of the injection. After 15 minutes fetal tcPo₂ was back at the initial level. None of the fetuses showed signs of bradycardia or other irregularities in the fetal heart rate pattern. In spite of the drop in fetal tcPo₂ in the one instance a repeat injection was made. This second injection did not affect fetal tcPo₂.

Conclusions: Paracervical block may be given in such a way that fetal transcutaneous Po₂ is not affected in most cases. We believe it is a question of the total dosage, the division of the drug in 4, instead of the usual two injections, the systematic positioning of the mother in the left lateral position immediately after the drug. Our results warrant further studies of the safety of paracervical block, but the previous studies would make dose response studies unethical.

Furthermore, as the injections potentially may decrease fetal oxygenation paracervical block should not be given in case of placental insufficiency or other circumstances which may lead to reduced fetal oxygenation.

- (1) Baxi, L.V., Petrie, R.H., James, L.S.: Human fetal oxygenation following paracervical block. Am J Obstet Gynecol 135 (1979) 111.

R.Jacobs, Univ. of Uppsala, Perinatal Res.Unit, University Hosp.
S-75014 Uppsala / Sweden