Post-Dural Puncture Headache in Obstetrics
Audiological, Clinical and Epidemiological studies

av

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Abstract

Post-dural puncture headache (PDPH) is the most common complication of obstetric epidural analgesia. The characteristic positional headache, often associated with visual, vestibular or cochlear symptoms, is severe and disabling for the parturient. The diagnosis is clinical without the possibility of confirmatory objective tests. Although epidural blood patch (EBP) is considered the gold standard for treatment of PDPH, many aspects of this treatment modality remain to be explored. This thesis was performed in order to improve our current knowledge of the diagnosis and the short and long-term consequences of PDPH. We found that the incidence of accidental dural puncture in labour epidural analgesia was 1% in the Nordic countries and 90% of these patients were managed with an EBP (study I). Auditory impairment related to PDPH was prospectively investigated in 21 parturients with PDPH treated with EBP (study II). A significantly greater number of parturients suffering from PDPH had hearing loss (> 20 dB) in the low frequency range compared to controls which improved spontaneously but independent of treatment with EBP. At 4 hours, 95% of subjects had a successful EBP but headache recurred in 24% at 24 hours. In study III, we investigated residual hearing deficit several years after PDPH treated with EBP. We found statistically significant long-term impairment of hearing but this was of minor clinical relevance. In study IV, 60 women with previous PDPH and treated with EBP responded to a validated questionnaire to determine the long-term effects of EBP on headache and backache. We found that subjects who had been treated with EBP had a significantly greater incidence and severity of headache compared to controls. The incidence of mild backache was also significantly higher but of limited clinical importance. In conclusion, PDPH after labour epidural analgesia is an important clinical problem. Parturients suffering from PDPH may have audiometric deterioration in the early postpartum period that recovers spontaneously over time and some long-term effects of PDPH on hearing may be evident but these are of minor clinical relevance. Clinically important headache, but not backache, may be present several years after PDPH.

Keywords: Accidental dural puncture, post-dural puncture headache, epidural blood patch, obstetrics.

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