

Interim report – July 2013

The incidence of persistent pain after Caesarean section and its association with maternal anxiety and socioeconomic background.

Steven Young, Brenda Daly, Niels Weidenhammer, Ruchira Marla, John Dolan. Ross Junkin, Lee Riddell, John Kinsella. Glasgow Royal Infirmary and The University of Glasgow

Background:

Chronic pain, or persistent post surgical pain, has not been well studied in the context of Caesarean section (the most commonly performed operation worldwide). Retrospective studies from Scandinavia suggest that 18% of women experience this complication (1,2). The aim here was to undertake a prospective observational, longitudinal natural history study, with the primary endpoint being pain (from any source) at 4 months. Secondary endpoints were to correlate 4 month pain to pre-operative anxiety, social deprivation, acute pain, and post natal depression.

Methods:

The study has ethical approval. Power calculations suggested that 100 completed questionnaires were required, and as the study population is from a severely deprived background, we anticipated a low return rate of the 4 month questionnaire of 50%, hence 200 women undergoing elective Caesarean section were consented. Pre-operatively the patients were asked to complete an anxiety score (Speilberger), and baseline demographics including analgesic use in pregnancy were recorded. 24 hours post-operatively, a single 100mm VAS score representing "pain since operation" was recorded. At 4 months, a questionnaire with a stamped return envelope was posted out, which combined a pain inventory, and post natal depression scoring system.

Results:

The study has finished recruiting and the data for secondary outcomes is being collated prior to being sent to the statisticians. The final numbers recruited were 200. Of these, 1 patient was subsequently withdrawn as they became an emergency case after recruitment. A further 4 forms are awaiting validation before being included. Of the remaining 195 patients, to date 96 follow up forms have been returned (response rate 49.2%).

35 (36.4%) reported pain using the 4 month pain inventory questionnaire.

Discussion/ Conclusion:

Our early results show a high incidence of pain at 4 months after Caesarean section, double that of previous retrospective studies. This is likely due to our wider definitions, including pain from any source. We are currently analysing the data to subdivide into "genuine" post surgical pain, and other pain such as chronic back ache, which is common after childbirth, and is not necessarily related to mode of delivery. Further analysis will demonstrate if 4 month pain is correlated to anxiety, social deprivation, acute pain, ante-natal analgesic use or post-natal depression.

In this prospective observational study, early results suggest that around a 1/3 of women report pain 4 months after Caesarean section.

References:

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2. J.P. Kainu, J. Sarvela, E. Tiippana, E. Halmesmäki, K.T. Korttila: *Persistent pain after caesarean section and vaginal birth: a cohort study. International Journal of Obstetric Anesthesia* (2009). Article in press.