

44212 - THE INCIDENCE GA FOR CS AFTER EPIDURAL ANALGESIA: PROSPECTIVE STUDY

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Introduction: The incidence of general anesthesia (GA) for cesarean section (CS) in parturients with a previously placed labor epidural has been estimated to be between 5.2% and 19.8%^{1;2}. Recent guidelines from the Royal College suggest that the incidence should be <3%³. The purpose of this study is to determine the incidence of conversion of epidural analgesia to GA in the setting of a busy high risk obstetric unit.

Methods: After REB approval, we prospectively studied all parturients who had an epidural for labor and required a CS. Data was collected on a form collected by an anesthesiologist not involved with patient care. The type of anesthesia, anesthetic agents used, the time from the initiation of anesthesia to incision, and previously identified determinants of failure of epidural anesthesia^{1;2;4} were recorded. The primary outcome was the incidence of GA. Secondary outcomes included the incidence of epidural anesthesia failure and the factors that correlated with failure. Sample size was based on the assumption that the incidence of failure would be 6%. A sample size of 1000 CS, this would allow calculation of up to 6 factors that correlate with failure. The proportion of GAs (and 95% confidence interval) was calculated and compared to 3%. Descriptive statistics were used to analyze the demographics. Multivariate statistics will be used to determine the important factors that correlated with failure.

Results: Between 03/01/06 and 12/21/06, we recruited 327 patients. Demographics, the time from initiation of anesthesia to incision, and dose epidural drug are shown in the table. The incidence of GA was 13/327 (4.0%, 95% CI 2.1%-6.7%, p=0.31). The total incidence of failure was 20/327 (6.1%, 95% CI 3.7-9.2%). The factors that correlate with epidural failure will be reported after the total sample has been collected.

Discussion: Epidural analgesia for labor can be successfully converted to anesthesia for CS in most patients. The incidence of GA in our sample was not statistically different from the guidelines suggested by the Royal College. Clear definition of factors that are associated with failure may help in early prediction and allow time to use other forms of regional anesthesia instead of GA in selected patients.

References:

1) IJOA 2002;11:81-4

2) Acta Anaesthesiol Scand 2006;50:793-7

3) <http://www.rcoa.ac.uk/docs/arb-section8.pdf>. Last access Jan4/07

4) IJOA 2002;11:9-12

Demographics	
Maternal Age Mean yrs (SD)	33 (4.3)
BMI Mean (SD)	29 (6.9)
Time (minutes) anesthesia to delivery (SD)	21 (13)
Total dose (ml) local anesthetic (SD)	18 (4)
Staff/Trainee anesthesia (n/n)	242/83

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