Monitoring depth of anaesthesia during GA Caesarean Section - an OAA approved UK national survey.

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Explicit awareness is a serious complication of general anaesthesia (GA) and can cause major psychological morbidity and is currently the subject of a National Anaesthetic Audit project, NAP5. Parturients have an increased risk of awareness with prevalence during lower segment Caesarean section (LSCS) under GA of 0.26% or 1:382. Depth of anaesthesia (DOA) monitoring reduces the risk of awareness, but its routine use is controversial [1]. We conducted an electronic survey to establish current practice in DOA monitoring during GA LSCS in the UK.

Methods

An electronic survey, endorsed by the Obstetric Anaesthetists Association (OAA), was distributed to lead obstetric anaesthetists in all UK units. One e-mail reminder was sent to non-responders.

Results

A response rate of 71% (149/210) was achieved. Results of the survey questions are displayed in Figures 1-6 below. DOA monitoring was used in less than 5% of units. Bispectral Index (BIS) was the most frequently used monitor. Reasons cited for its absence included ‘Unavailability’ (38%) and ‘Not considered necessary’ (34%). End Tidal Agent (ET Ag) or Minimum Alveolar Concentration (MAC) alarms were used in 23% of units. Recall of intraoperative events was routinely enquired about postnataally in 40% of units. No incidents of awareness were reported.

Conclusion

Despite wide acceptance that GA LSCS has an increased risk of awareness, the evidence from our survey shows that DOA monitoring is rarely used and other conventional monitoring modalities such as ET Ag and MAC alarms are used inconsistently. A Cochrane review concluded that BIS was effective in reducing intra-operative recall and that general anaesthesia guided by BIS could improve anaesthetic delivery and recovery [2]. Whilst the exact role of DOA monitoring remains disputed, failing to employ ET Ag alarms in the obstetric population when BIS or other methods of electroencephalogram analysis is not utilised is arguably unjustifiable.

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References