Debate

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Outline

The Appropriate Use of Intraoperative Neurologic Monitoring for Cervical Procedures:
Neuromonitoring in Selective Cases

- Beyond its possible utility, intraoperative neuromonitoring (IOM) has multiple issues
  - Extra time, technical variability, stress to surgeon, disagreement on alerts, cost
- Question to answer for this debate: Does IOM decrease the likelihood of a neurological deficit
- Noncomparative studies tout high alert rates and many “near misses” of neurological deficits, but cannot actually tell how many alerts were true positives if patient wakes up neurologically stable
- False negatives still occur
- Comparative studies for routine C-spine surgery overwhelmingly fail to demonstrate a lower rate of new postoperative neurological deficits
- Systematic review/meta-analyses—similarly do not find that IOM makes routine surgery safer
- Exceptions may be deformity correction and fracture/dislocation reductions in which there is a distinctly reversible maneuver

References


4: Smith PN, Balzer JR, Khan MH, Davis RA, Crammond D, Welch WC, Gerszten P,