Surgical error

Is common and contributes to complications, necessitating detailed prospective collection and analysis of error data that emphasizes prevention.

One neurosurgeon prospectively recorded errors and complications for consecutive patients undergoing elective neurosurgical procedures. Each error was scored for type, severity, preventability, and consequence.

Between May 2000 and August 2006, 1108 elective cases were studied, comprising 76.1% cranial, 22.7% spinal, and 1.2% other procedures. There were 2684 errors in 87.1% of cases. The most common errors were technical (27.8%), contamination (25.3%), equipment failure or missing equipment (18.2%), or related to delay (12.5%). Of the errors, 22.6% were considered major and 77.4% were minor, with 2.7% of errors substantially impacting the clinical course of the patient. Of all errors, 78.5% were deemed preventable. Of the complications, 16.7% were related to errors, of which 80.6% were major errors. Of the error-related complications, 74.2% were declared preventable. A propensity for error was identified with cranial procedures and patients with higher American Society of Anesthesiologists scores ($P < 0.01$).

Surgical errors are common, often preventable, and frequently lead to clinical impact. In addition, the type of procedure and characteristics of the patient are important factors to consider when addressing surgical error. For individual surgeons to maintain quality control and contribute to the safety of the health care system, they must track and analyze errors to ensure that systems may be developed to prevent their occurrence [1)].

1)
Stone S, Bernstein M. Prospective error recording in surgery: an analysis of 1108 elective neurosurgical cases. Neurosurgery. 2007 Jun;60(6):1075-80; discussion 1080-2. PubMed PMID: 17538382.