Spiral Needle Electrodes for Evoked Potential Monitoring

To the Editor—The increasing involvement of anesthesiologists in monitoring intraoperative evoked potentials has significantly increased preoperative patient preparation time. Any device or technique simplifying patient preparation would be highly desirable.

We have found that the use of a spiral needle electrode (fig. 1), typically used for fetal scalp monitoring in obstetrics, is an attractive alternative to gold-coated or tin disc electrodes, both of which require prolonged application time for preparation of the skin and drying of the collodion adhesive.

The needle itself is longer than standard EEG electrodes, thus increasing surface area contact. The spiral nature of the needle ensures secure adherence without dependence on tape or collodion. The needles themselves are easily applied after mild abrasion of the skin with an alcohol pad. Measured impedances less than 5000 ohms are easily achieved and impedances less than 2000 ohms are not uncommon.

We have found insertion of these spiral electrodes to be expeditious, although unsedated patients experience discomfort during insertion. We routinely administer an opiate as premedication and use a topical anesthetic, such as ethyl chloride, before insertion. We have found the use of these electrodes to be a useful alternative to the other commonly used electrode systems.

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A Modification of an Eschmann Endotracheal Tube Changer for Insufflation

To the Editor—When changing an endotracheal tube it is important—but sometimes difficult—to maintain good oxygenation in the patient. We modified an Eschmann* endotracheal tube changer to improve oxygenation while an endotracheal tube is being changed. The Eschmann endotracheal tube changer, as manufactured, has an external diameter of about 4 mm and a length of 60 cm. It is hollow with sealed ends. Our modification consists of the following components: 1) an Eschmann endotracheal tube changer, from which 1 cm of both ends has been cut off, making a hollow con-