Anesthesiology
67:150, 1987

A Modification of Traditional Sterile Technique for Regional Anesthesia

To the Editor:—The traditional use of paper drapes to create a sterile field for regional anesthesia can cause numerous problems for the anesthesiologist. This includes obscuring important landmarks when patient position or cooperation is less than ideal. Also, the possibility of sterile field contamination exists secondary to movement of the drape once the field has been established.

The modification I suggest involves the use of a Tagaderm® (20 cm × 30 cm, 3M, St. Paul, MN) instead of the standard paper drape. The Tagaderm® is applied to the prepped skin, allowing the lower sterile drape to be incorporated into the Tagaderm® (fig. 1). This creates a sterile field which allows a better view of all landmarks, and insures that sterility will not be broken during the procedure. If betadine was used to cleanse the skin, any excess is removed using sterile wipes to insure that no betadine will enter the subarachnoid space secondary to the placement of the spinal needle.

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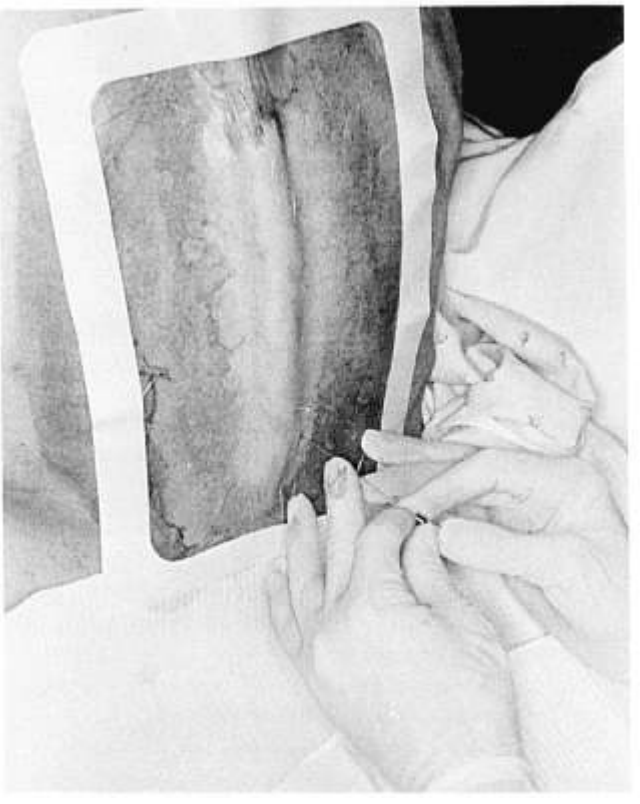

FIG. 1. Adhesive dressing in place.

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Pulse Oximetry during Shoulder Arthroscopy

To the Editor:—We agree with Drs. Herschman, Frost, and Goldiner[1] that pulse oximetry may be a useful means of monitoring brachial artery compression during shoulder arthroscopy, but we would like to add a note of caution. Excessive traction on the arm during shoulder arthroscopy can result not only in arterial compression, but also in traction neuropraxia.[2] Moreover, with traction assemblies incorporating a sling on the upper arm,[3] there is a risk of peripheral nerve compression. Satisfactory oximeter pulse forms, while indicating adequate arm perfusion, do not exclude the presence of dangerous traction on the brachial plexus, nor of compression of peripheral nerves. Indeed, in three awake volunteers, we found that increasing arm traction produced parasthesias well before there were changes in oximeter pulse forms (unpublished observations). While pulse oximetry may provide early warning of arterial compression, it should not be used as the only indicator of safe or unsafe levels of arm traction during shoulder arthroscopy.

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Tracheo-bronchial Angles in Neonates

To the Editor—Kubota *et al.*[1] recently reported that the left tracheo-bronchial angle is greater than the right in infants and children. However, neonates were not included in their study, and there were only a few reports on the tracheo-bronchial angles in neonates.[2,3] We measured the tracheo-bronchial angles in neonates, including both premature and full-term infants, and examined if there is any change of the angles with regard to the gestational age.

One hundred and four neonates (52 boys and 52 girls) admitted to the neonatal ICU, between the gestational ages of 23 and 42 weeks, were the subjects of the study. Neonates with anatomical abnormalities in the chest, such as pneumothorax, diaphragmatic hernia, or mediastinal disease, were excluded. Chest radiograph films were taken, with all neonates in the supine position on admission. The right and left bronchial angles (RBA, LBA), which consisted of the axis of the trachea and each main stem bronchus, and the tracheal bifurcation angle (TBA) were measured from the films. The neonates were divided into two groups according to the gestational age, *i.e.*, a premature infant (<37 weeks) group and a full-term infant (≥37 weeks) group. Student's *t* tests were utilized for statistical analysis, and $P < 0.05$ was considered significant. Results are shown in table 1.

TABLE 1. Results (Mean ± SD, Degree)

Group	Cases	RBA	LBA	TBA
Premature infants	58	31.6 ± 5.7	47.1 ± 5.7	78.7 ± 8.9
Full-term infants	46	31.1 ± 5.5	47.2 ± 5.2	78.1 ± 7.3
Total	104	31.4 ± 5.6	47.1 ± 5.5	78.4 ± 7.3

The left tracheo-bronchial angle (47.1 ± 5.5°) was significantly greater than the right (31.4 ± 5.6°) in neonates. The RBA, LBA, and TBA showed no significant differences between the premature and full-term infants.

The results obtained in our study were similar to those reported previously in neonates (RBA 30°, LBA 47°)[2] and infants and children (RBA 31 ± 5°, LBA 46 ± 5°).[1] Placzek and Silverman[3] also reported identical observations in 19 neonates. Since there were no differences in the angles between the premature and full-term infants, there seemed to be little changes in the angles during maturation. In conclusion, even in premature infants, the LBA is greater than the RBA, and the incidence of accidental right endobronchial intubation must be higher than that of the left.

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