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Ipsilateral Shoulder Pain Following Thoracic Operations: I

To the Editor:—I was amazed to find no mention of ipsilateral shoulder positioning or padding, either by exclusion or discussion, nor of length of time in the lateral position in the paper by Burgess *et al.*[1] I have found both to be factors in ipsilateral shoulder pain after thoracotomy.

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Reference

1. Burgess FW, Anderson M, Colonna D, Sborov MJ, Cavanaugh DG: Ipsilateral shoulder pain following thoracic surgery. ANESTHESIOLOGY 78:365–368, 1993

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Ipsilateral Shoulder Pain Following Thoracic Operations: II

To the Editor:—The recent report by Burgess and his colleagues quantified the occurrence of ipsilateral shoulder pain after pulmonary operations.[1] They noted a very high incidence (>75%) of this complication following major pulmonary resection (lobectomy, pneumonectomy) and a low incidence (<7%) following minor procedures (wedge resection, biopsy). Based on these observations, they believe that transection of a major airway is the cause of postthoracotomy shoulder pain.

Disruption of the airway is only one of several differences between the two groups. Unfortunately, the authors fail to consider others. For example, patient position during operation is not mentioned. Wedge resection and pulmonary biopsy can be performed with the patient supine, whereas for major pulmonary resection, the patient is almost always in the lateral decubitus. In that position, the ipsilateral arm can be stretched at the brachial plexus and/or shoulder joint, a situation not possible when the patient is supine. Even if all operations were performed in the same position, those undergoing lobectomy and pneumonectomy would be in the uncomfortable, unphysiologic lateral position longer.

Longer operations are associated with a higher incidence of nonincisional postoperative pain, even among patients undergoing identical operations.[2]

During major pulmonary resection, the ribs are spread relatively widely by the retractor, causing distraction of ligaments posteriorly. We believe this is the cause of shoulder pain.

Although we cannot say the authors are incorrect in associating ipsilateral shoulder pain following thoracotomy with transection of a major airway, other factors not considered in the paper may be of equal or greater importance as to the true etiology of this common complication. Additionally, the authors fail to postulate any direct neurologic or other relationship between cutting a bronchus and postoperative pain. At best, they document as association without causal relationship.

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1. Burgess FW, Anderson M, Colonna D, Sborov MJ, Cavanaugh DG: Ipsilateral shoulder pain following thoracic surgery. ANESTHESIOLOGY 78:365–368, 1993
2. Brodsky JB, Ehrenwerth J: Postoperative muscle pains and suxamethonium. Br J Anaesth 52:215–218, 1980

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