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Spinal Headache and Air Travel

To the Editor:—Vacanti, in 1972,¹ reported a severe recurrence of a post-lumbar-puncture headache precipitated by change in atmospheric pressure associated with an airplane flight. We have recently treated a post-lumbar-puncture headache with an epidural blood patch, only to have a recurrence of headache occasioned by air travel.

A healthy, 33-year-old woman had laparoscopy with epidural anesthesia, during which a dural puncture with a 19-gauge needle was accidentally performed. She noticed a positional headache the next morning, and was treated immediately with an epidural blood patch, with relief. Her headache recurred 48 hours later and she was successfully treated with a second epidural blood patch four days after the initial puncture. Eight days thereafter, her headache again recurred while on a commercial airline flight to her home in Alaska. She noticed a positional headache that then persisted for four weeks, despite additional treatment with oral fluid intake, analgesic drugs, and bed rest. It became associated with an increasingly frequent, intermittent, non-positional headache. She consulted a neurologist, who could identify no neurologic disease. A third epidural blood patch, six weeks after the initial puncture, provided resolution of her positional headache. Her non-positional headaches

were believed to be related to depression secondary to enforced inactivity, and proceeded to improve after she finally was able to return to work, eight weeks after her operation.

The aggravation of post-lumbar-puncture headaches by acute decreases in atmospheric pressure is possibly related to an increased pressure gradient between the subdural and epidural spaces. The mechanism is still unclear, but it does appear, from this case, that such exacerbations may occur despite a previously successful epidural blood patch. It may be judicious to advise patients who plan air travel shortly after lumbar puncture or epidural blood patch that there may be an associated risk of recurrence or exacerbation of headache.

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REFERENCE

1. Vacanti JJ: Postspinal headache in air travel. *ANESTHESIOLOGY* 37:358-359, 1972

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Unexplained Brachial-plexus Palsy

To the Editor:—Damage to the brachial plexus, while uncommon, is the most frequent type of postoperative neuropathy. We had a patient in whom a right partial brachial plexus palsy developed following a left hemithyroidectomy. We surveyed the literature and have not found a similar case report.

The patient, a 42-year-old, 90-kg man, was admitted for removal of an enlarging mass in the left thyroid lobe, which had been present for a year. His past history was unremarkable. He had no muscle weakness, pain, or paresthesia in the neck or upper extremities. There was a 5 × 4-cm mass occupying the entire left thyroid lobe. The remainder of the physical examination disclosed no abnormality. Roentgenograms of the chest were negative except for a displacement of

the trachea to the right by the thyroid mass. A thyroid scan demonstrated a nonfunctioning left thyroid lobe. The patient received premedication intramuscularly in the right arm, presumably in the deltoid region. The injection was painless and without paresthesia. Throughout the entire operation the patient was positioned with both arms at his sides. His shoulders were elevated 4-5 cm from the table by a folded sheet. The head and neck were moderately hyperextended and maintained in the midline. The operation lasted three and a half hours. The left thyroid lobe and isthmus were resected. The right thyroid lobe was not explored.

On the evening of the operative day, the patient complained of inability to move his right shoulder.