has evaluated surgery and anesthesia alone as a possible independent risk factor for development of stroke.

Using a medical record linkage system to the Rochester Epidemiology Project, Wong *et al.* retrieved records of 1,455 people who had an incident (first-time) of ischemic stroke from 1960 to 1984. An equal number of age-and gender-matched controls were identified from the same database. With the additional usage of the Mayo Surgical Information Retrieval System, the team then identified all stroke cases in which surgery with either general anesthesia or central neuroaxis blockade had been performed within 1 yr before the stroke date.

A conditional logistic regression model was used to estimate the odds of stroke after surgery and general anesthesia. The team identified 59 patients and 17 controls who underwent surgery within 30 days before their stroke or index date. After adjusting for previously identified risk factors (male gender, cigarette smoking, history of transient ischemic attacks, among others) the team found that undergoing surgery 30 days before the index date was an independent risk factor for stroke. The risk of perioperative ischemic stroke was increased even after general, non-high-risk surgeries. The mechanisms underlying this increased risk, of course, require further investigation.

■ Development of Ulnar Neuropathy Not Limited to Perioperative Setting. Warner *et al.* (page 613)

In an attempt to determine the underlying causes of ulnar neuropathy, Warner *et al.* previously described 7 of 1502 prospectively studied surgical patients who reported onset of symptoms 2-7 days after their procedures. In the current issue, the team describes two patients from a prospective study of ulnar neuropathy in patients admitted to the hospital for nonsurgical conditions. *Ulnar neuropathy* was defined as current symptoms of paresthesia in the ulnar distribution, signs of abnormal two-point discrimination in the volar surface of the distal fifth digit, or weakness of the first dorsal interosseous and abductor digiti minimi muscles. Patients with current symptoms or preexisting ulnar neuropathy were excluded from the study.

A specially trained research assistant performed a standardized daily baseline neurologic assessment of the upper extremities in all study participants while they were in the hospital. Those discharged before 7 days were interviewed by phone using a standardized questionnaire. Two of the study's 986 patients had ulnar neuropathy. Patient 1 was a 55-yr-old man with a 6-month history of recurrent disseminated aspergillosis who was admitted for intravenous antifungal therapy, who experienced intermittent tingling in the fourth and fifth digits of his right hand on the third hospital day. By the fifth day, tingling had become constant and was accompanied by a burning dysesthesia when his elbow was flexed greater than 90°. His symptoms improved gradually and completely resolved over the next 6 months. Patient 2 was a 67-yr-old man with severe bronchiectasis admitted for treatment of recurrent *Pseudomonas pneumonia* with intravenous antibiotics and respiratory therapy, in whom developed tingling and aching in the fourth and fifth digits of his left hand on the fourth hospital day. By the sixth day, he also had symptoms in his right hand, which resolved within 2 weeks. Symptoms in his left hand, however, persisted for 8 months.

The authors posit that factors common to medical and postoperative patients may contribute to the development of ulnar neuropathy. Specifically, male gender and prolonged periods of bed rest in the supine position seem to increase risk. When lying in a hospital bed, patients tend to bend their elbows and rest their hands on the upper abdomen or chest, thus increasing pressure on the ulnar nerve. Anatomic differences at the elbow, *i.e.*, larger tubercle of the coronoid process and less fatty tissue over the medial aspect, may explain why this condition is more likely to develop in men than in women.

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