and tachycardia occur during endotracheal intubation, but these do not appear to be drug related. Atracurium 1.5 mg/kg also provides rapid, total paralysis of limited duration, but in association with moderate hypotension and tachycardia. We conclude that vecuronium may be preferred for situations in which SCh is contraindicated and in which rapid paralysis is mandatory.

The authors thank James Palmer, CRNA and Steven Osborn, CRNA for their technical assistance.

REFERENCES

Anesthesiology
64:513–514, 1986


HIMAT VAGHADIA, F.F.A.R.C.S.*

Facial nerve paralysis developing after general anesthesia has been reported.1-3 An unusual case is described in which unilateral facial paresis in association with Heerfordt’s syndrome developed after general anesthesia.

REPORT OF A CASE

A 34-year-old woman was admitted for colposcopy and cervical biopsy after a cervical smear revealed cervical dysplasia. She had a 5-year history of biopsy-proven sarcoidosis with bilateral lower extremity weakness due to involvement of the lumbar spinal cord. Two years before her current admission she had developed bilateral uveitis, which responded to a 10-day course of high-dose prednisone therapy. She did not receive any further steroid treatment or other medications. She denied experiencing any ocular pain,光a, hearing loss, or previous episodes of facial nerve weakness or parotid swelling. Preoperative chest roentgenogram and electrocardiogram were normal.

Diazepam, 10 mg orally, was given 2 h preoperatively. General anesthesia was induced with 275 mg thiopental iv. Anesthesia was maintained with a mixture of oxygen 3 l/min, nitrous oxide 6 l/min, and halothane. An oral airway was not used. The face mask was held lightly, and excessive pressure at the ramus of the mandible was not required. Anesthesia was maintained for 45 min.

After returning to the ward, the patient complained of increased difficulty in talking, dribbling of saliva and food, and an inability to move the lower left lip. Examination revealed asymmetry of movement of the lower lip with inability to purse the lips, as in whistling. This indicated paralysis of the muscles innervated by the marginal mandibular branch of the facial nerve. Taste sensation of the anterior two-thirds of the tongue was intact, as was motor function in the remaining area of distribution of the facial nerve. There were no other deficits of cranial or peripheral nerve function.

A provisional diagnosis ofiatrogenic facial palsy as the result of compression of the marginal mandibular branch near the angle of the jaw was made, and the therapeutic goal was, initially, to await spontaneous remission. However, on the second postoperative day, the patient complained ofphotophobia and mistiness of vision. Ophthalmologic examination revealed anterior uveitis with keratin precipitates on the posterior cornea. There was no evidence ofparotid gland swelling or tenderness but an occasional evening increase in temperature (oral) of between 99.5 and 100°F occurred. The diagnosis was revised to that of Heerfordt’s syndrome, and therapy with oral prednisone (80 mg/day, reducing over 10 days) and hydrocortisone eye drops was initiated. Remission of symptoms occurred gradually over 8 weeks, after which time normal function had returned.

DISCUSSION

The incidence of nerve injuries following general anesthesia has been quoted in two large studies as 0.14% and
0.1%, respectively. The majority of such injuries are the result of stretching or compression of nerves, which causes focal neural ischemia and, when stretching alone occurs, the rupture of intraneural capillaries. However, congenital anomalies, such as a cervical rib, and other conditions, such as diphtheria, porphyria, vitamin deficiencies, blood dyscrasias, pernicious anemia, hypovolemia, hypothermia, diabetes, and arteriosclerosis, are precipitating factors in the etiology of pressure-induced paresis.

Injury to the facial nerve during surgery is usually the result of operative procedures that take place along the course of the nerve. Susceptibility to injury by pressure from a harness or tight-fitting face mask is increased if the nerve lies superficially and can thus be compressed near the angle of the jaw.

This patient developed paresis of the marginal mandibular branch of the facial nerve, resulting in paralysis of the depressor labii inferioris, depressor anguli oris, and mentalis muscles. This was temporally and erroneously attributed to nerve pressure ischemia during airway control under general anesthesia. Subsequent assessment revealed bilateral anterior uveitis and a mild pyrexia that, in the presence of pre-existing sarcoidosis, indicated the development of Heerfordt's syndrome (uveoparotid fever). This condition is a variant of sarcoidosis diagnosed clinically by the uveitis, cranial nerve paralysis (most commonly, the facial nerve), parotitis, and mild pyrexia. The incidence of facial paralysis in uveoparotid fever is between 50% and 70%. Facial paralysis may precede or follow parotid swelling by days to months or may occur in the absence of parotitis. The mechanism of facial paralysis is not understood. Facial nerve paresis developing after general anesthesia in the absence of active parotitis has not been previously reported with Heerfordt's syndrome. Systemic corticosteroids are an absolute indication when facial palsy develops in this condition in order to prevent permanent paralysis and contracture of the innervated muscles. With medical treatment, complete recovery of the facial nerve is to be expected over 3 months, although some patients may be left with mild residual impairment of facial nerve function.

In summary, iatrogenic facial nerve injury during anesthesia is uncommon.

The development of such a complication should place emphasis on ruling out other precipitating factors. This patient developed unilateral facial paresis after anesthesia that was subsequently diagnosed as Heerfordt's syndrome. Even though the development of Heerfordt's syndrome after general anesthesia in a patient with pre-existing sarcoidosis has not been cited previously, the reporting of further cases may help to evaluate any possible association. Mechanical pressure over the facial nerve during general anesthesia is an important and preventable factor.

REFERENCES