CASE REPORTS AND TECHNICAL NOTES

ANEURYSM OF ANOMALOUS OPHTHALMIC ARTERY
PRESENTING IN THE SPHENOID SINUS AND SIMULATING AN ANEURYSM OF THE INTERNAL CAROTID ARTERY ON ROUTINE ARTERIOGRAPHY
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Epistaxis as the presenting symptom of aneurysms or arteriovenous fistulae in the region of the sphenoid sinus has been mentioned in at least 3 other cases.\textsuperscript{1,2,3} The diagnosis was based upon the occurrence of arterial epistaxes and an associated bruit, or adjacent cranial nerve palsies. In none was the aneurysm demonstrated by contrast radiography. Two of these patients were cured by carotid ligation \textsuperscript{2,3} but the third died of the epistaxis.\textsuperscript{1}

CASE SUMMARY

Case §288-991. A 42-year-old colored female was admitted to the emergency ward on Oct. 13, 1949 within 1 hour following an automobile accident in which her head struck the dashboard.

She had sustained multiple lacerations of the face, bilateral fractures of the mandible and a compound comminuted depressed fracture of the right frontal bone involving the entire supraorbital ridge, right frontal sinus and roof of the orbit.

Examination. There was complete anesthesis of the right forehead and cheek. The right eye was completely blind, deviated upward and outward, and the pupil was ovoid and fixed. Funduscopic examination revealed venous engorgement but no hemorrhages in the right retina. The left eye was normal. Cerebrospinal rhinorrhea was not evident.

Motor power and coordination of all extremities were good. The deep tendon reflexes were generally hypoactive and there was a left positive Babinski. There was no evidence of intra-thoracic or abdominal injury.

1st Operation. Following preparation with blood transfusion, penicillin, tetanus antitoxin and atropine the patient was taken to surgery. The wounds were debrided, grossly contaminated bone fragments were removed, lacerations of the dura were repaired, and the right frontal sinus was curetted and packed with gelfoam and gauze. The incisions were closed primarily and the gauze pack was brought out through the lateral end of the supraorbital incision. The head dressing was adapted to also immobilize the jaw fractures.

Course. Postoperatively she was placed on chemotherapy and tube feedings. The packing was removed on the 6th and the sutures on the 8th day. More nearly accurate reduction of the mandibular fractures was secured by means of Jelenko splints. When discharged on her 23rd postoperative day there were anesthesis and a soft depression of the right forehead, blindness of the right eye and weakness of the right 3rd nerve.

She was followed in the out-patient department where the Jelenko splints were removed, and the 3rd nerve weakness recovered completely. During this time she also had been treated in the emergency ward for 3 episodes of epistaxis.

The otolaryngological service readmitted her to the hospital on Dec. 3, 1949 for investigation of these epistaxes. Nasopharyngoscopy revealed the source of the bleeding to be the sphenoid sinus. In an attempt at lipiodol instillation, cannulation of the sphenoid ostium resulted in brisk arterial bleeding through the cannula.

Right percutaneous carotid arteriography on Dec. 15, 1949 revealed an ovoid midline
ANEURYSM OF ANOMALOUS OPHTHALMIC ARTERY

opacity below and anterior to the sella turcica which apparently arose from the right internal carotid artery (Figs. 1 and 2). An oblique view, however, showed this opacity to have an elongated stalk connecting it with the internal carotid artery close to the posterior genu (Fig. 3).

Fig. 1. Carotid arteriogram. Right lateral view. Arterial phase showing the globoid well defined collection of dye anterior to the sella turcica, apparently continuous with the internal carotid artery.

Fig. 2. Right lateral view. Venous phase showing the persistence of dye in the aneurysmal sac beyond the arterial phase.

2nd Operation. On Dec. 19, 1949, following a 15-minute trial occlusion of the right internal carotid artery under local anesthesia, it was permanently ligated 2 cm. distal to the carotid bifurcation in the neck.

3rd Operation. Two weeks later a right frontal osteoplastic flap was reflected and two silver