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FOR THROMBOSIS OF THE INTERNAL CAROTID ARTERY IN THE NECK*
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WITHIN the past few years several reports concerning thrombosis of the internal carotid artery in the neck have appeared in the literature. The increase in the reported incidence of primary thrombosis of the cervical portion of the internal carotid artery has generally been attributed to the development and the prevalent use of cerebral angiography.\(^2\)\(^4\) The early recognition of thrombosis of the internal carotid artery in the neck on clinical grounds alone is almost impossible, since the symptoms and signs are not distinctive, but may occur with cerebral thrombosis, brain tumor, and other space-occupying lesions.\(^1\)\(^2\)

CASE REPORT

\(^\#\)60580. J.T., a 52-year-old white male, was admitted on Jan. 15, 1953. On January 12, the patient had stated that he felt ill. He complained of headache and refused to eat. Shortly thereafter members of his family noticed that he had weakness of the right side of the face and the right extremities. These symptoms and signs cleared in 1 day. Two days later he began to talk "nonsense" and complained of inability to see to the right.

Examination. He was a well developed, well nourished acutely ill right-handed white male whose lips appeared to be slightly cyanotic, although he was not in respiratory distress. He was indifferent to his surroundings. The temperature was 100.2\(^\circ\); pulse rate 92; respiratory rate 16; and B.P. 140/75. The peripheral pulses in all four extremities were present and equal, and there was no striking evidence of generalized atherosclerosis or of a systemic vascular disease. There was a marked sensory aphasia with perseveration. Right-left dissociation and finger agnosia were present. He answered questions either with jargon or "Holy God." Occasionally he gave inappropriate simple answers. He was able to understand and follow simple commands. Complex commands were inadequately carried out. Motor function was good bilaterally. The right abdominal reflexes were absent and there was a positive Babinski sign on the right. All other reflexes were normal. On bilateral simultaneous stimulation there was extinction of sensation on the right side of the body and face. The eyegrounds showed early papilledema. A gross right homonymous hemianopsia was present. Accurate testing of the visual fields could not be carried out because of the patient's inability to cooperate.

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Analyses of the urine, spinal fluid, and blood, including hematologic, chemical, and serologic studies, disclosed no abnormalities. Roentgenograms of the skull showed a calcified pineal body located in the midline. An initial diagnosis of thrombosis of a branch of the left middle cerebral artery was entertained.

Course. During the 1st week the condition of the patient was relatively stationary. Four days after admission roentgenograms of the skull showed a 2 to 3 mm. shift of the pineal body to the right. Three days later the deviation was estimated to be 6 mm. (Fig. 1). An EEG disclosed left-sided electrical abnormality, with no definite localization. In view of these developments the diagnosis was changed to that of a left temporoparietal tumor.

Angiography. On Jan. 23, 1953, four injections of 35 per cent diodrast (8 cc. each) were made into the left common carotid artery by the percutaneous route. Films in the anteroposterior and left lateral projections showed filling only of the external carotid artery and its branches.

During the next 2 days the patient exhibited transitory periods of increasing drowsiness, accompanied by irregular respirations of 12–14 a minute. There was no change in his neurological status. It was felt by one of us (K.J.S) that papilledema was not present, and that the most likely diagnosis was thrombosis of the left internal carotid artery in the neck. The pineal shift was explained on the basis of unilateral cerebral edema secondary to anoxia associated with decreased blood flow through the left hemisphere.

Angiography was repeated on January 26, after insertion of a 17-gauge needle into the left common carotid artery. A single injection of 10 cc. of 35 per cent diodrast was made and a single exposure in the left lateral projection was made on a 10×14″ film. This revealed satisfactory filling of the external carotid circulation. The flow of diodrast through the internal carotid artery was arrested at a point approximately 1.5 cm. beyond the bifurcation (Fig. 2). This confirmed the diagnosis of thrombosis of the internal carotid artery.

Because of the possibility of attacking the lesion surgically, it was advisable to determine the adequacy of the cerebral circulation through the circle of Willis. Cerebral angiography by way of the right common carotid artery was done, despite the hazard entailed. Serial exposures in the lateral and anteroposterior projections were made during four injections of 7 cc. of 35 per cent diodrast. Films revealed filling of the right and left anterior and middle cerebral arteries. The intracranial portion of the left internal carotid artery filled in a retrograde manner for a distance of approximately 6–8 mm. (Fig. 3).

Operation, Jan. 28, 1953. Through an incision parallel to the anterior border of the left sternocleidomastoid muscle, from the tip of the mastoid process to the