Nevertheless, the results suggest that occasional elective radical removal of vascular malformations from within or around the cord proper may be the procedure of choice in young persons. Pilcher has already come to this conclusion with respect to similar lesions in the brain.

SUMMARY

1. A case of an arteriovenous aneurysm situated within and around the conus medullaris of the spinal cord is described.
2. Surgical removal in toto was carried out in order to prevent spontaneous rupture.
3. Immediate paraplegia followed with a slow return to nearly complete recovery.

REFERENCES


ARTERIAL ANEURYSM OF THE POSTERIOR FOSSA*

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Pathological reports of aneurysm of the posterior intracranial circulation have been numerous. The majority of the lesions described have been of the fusiform or S-shaped type, occurring in older age groups, and associated with arteriosclerosis. Morgagni’s 2 cases were certainly of this type, involving the basilar and both posterior cerebral arteries in one instance, and the basilar at the site of junction of the vertebrobasilar in the other.

Large or small saccular aneurysms, presumably of congenital origin, are less frequently encountered. Cruveilhier’s classical illustration of a spherical aneurysm of the right vertebral artery at the point of branching of the posterior inferior cerebellar, appears to be of this type, and fits in with Forbus’s theory of the origin of intracranial aneurysms. Lebert described autopsy findings in a case of a large unruptured egg-sized aneurysm of the basilar artery. Sudden onset of deafness and left hemiplegia, culminating in death of a patient, was reported by Van der Byl, who found a small ruptured basilar aneurysm.

Aneurysms of branches of the basilar and vertebral arteries have been described by Bristowe, Ogle and Wichern. In one of Wichern’s cases, a tiny ruptured aneurysm of the right inferior cerebellar artery was found in a 25-year-old woman, who had had two episodes of bleeding before she died.

In 1922, Wells reported a case of a large saccular aneurysm of the left vertebral artery, which had given signs referable to the cerebellopontine angle. Guillain, Schmite and Bertrand—

emphasized the difficulty of differential diagnosis between aneurysm of the posterior circulation and tumor of the angle. Certainly it is not surprising that large aneurysmal dilatations in this region are not recognized until operation or autopsy.

Of 21 cases of posterior cranial aneurysm in Dandy's series, there were 11 S-shaped, sclerotic dilatations of the basilar artery, with the lateral bend coming to rest against the 5th or 8th nerves, resulting in trigeminal neuralgia or Ménière's syndrome. In Dandy's remaining 10 cases, there were 2 large sacculated aneurysms, which were operated upon for suspected posterior fossa tumor, with fatal outcome. Among 5 cases of small sacculations, Dandy described 1 in which death followed rupture of a 5 mm. sac on the posterior inferior cerebellar artery, and pointed out that surgery could have resulted in cure.

In the 1 case in which Dandy shelled out a posterior aneurysm, pressure was so great within the posterior fossa that the patient died. This operation was performed 7 years before his monograph was written, and, as he pointed out, the patient "would almost certainly (survive) in the present status of intracranial surgery." He concluded: "I know of no successful outcome from operative attack upon an aneurysm of the posterior cranial fossa, but for those upon the vertebral and posterior inferior cerebellar arteries, which afford good exposure, cures will certainly come in time."

The following case is presented, in which the history and findings were sufficiently clear-cut to establish a diagnosis before operation, and in which a small aneurysm was found that was amenable to surgery.

CASE REPORT

M.V., a 27-year-old housewife, was first seen in consultation on Oct. 3, 1946. During the preceding 3 years, there had been 8 or 9 episodes of sudden onset of occipital and frontal headache, dizziness and generalized weakness. Some of these attacks were sufficiently severe to keep her inactive for as long as 3 to 4 months at a time.

On Aug. 15, 1946, she was aroused from sleep by severe occipital headache, following which there developed staggering gait with a tendency to veer to the left. At first, she ascribed these symptoms to the onset of menstruation. Nausea and vomiting were added to the picture. These symptoms responded, after a week, to saline purgative treatment for "biliousness" and "toxic poisoning." Dizziness improved, but she was unable to walk without support.

Eleven days later, she was again stricken, while taking a nap. She noted a severe "roaring" noise in her head, and numbness of the left upper lip. Within 24 hours, the entire left side of the face became numb; there was partial facial paralysis, and taste was disturbed on the left side of her tongue. She also noted inability to control movements of her left hand. She was seen by an otolaryngologist, Dr. James D. McCloskey, of Alton, Illinois, who found corneal anesthesia on the left, rotary nystagmus, past pointing on the left, and a positive Romberg, with falling to the left. Audiograms revealed 40 per cent loss in the left ear. Caloric tests were inconclusive due to severe spontaneous nystagmus. Examination of the spinal fluid, after admission to a local hospital, was reported as normal, with 4 cells.

Examination. When seen by me on Oct. 3, 1946, the patient had severe vertigo and tinnitus. The left cornea was anesthetic and there was hypesthesia over the rest of the trigeminal nerve distribution. There was marked nystagmus, particularly on left lateral gaze. Hearing was grossly diminished on the left. There was bilateral ataxia, greater on the left than the right. Examination of the eye grounds showed slight hyperaemia on the right.

The patient was treated with complete bed rest, and was transferred to Barnes Hospital on Oct. 13, 1946. While awaiting transfer, there was steady improvement in her condition, so that there were few residual signs. Except for hypesthesia of the left corner of the mouth, trigeminal sensation was now intact. Nystagmus was present in moderate degree. Audiograms revealed normal hearing on the right, with 20-30 units of hearing loss on the left. Caloric tests showed directional preponderance to the left. On lumbar puncture, spinal fluid pressure was 50 mm. of water. Fluid was colorless. It contained 360 red blood cells, most of which were crenated, and 43 lymphocytes. Total protein was 49 mg. per cent. Colloidal gold curve was 2222210000. Serology was negative. Roentgenograms of the skull were negative.