A review of the medical literature revealed only 19 documented cases of extradural hemorrhage occurring in the spinal canal. In 13 of these cases it was proven that the hemorrhage was caused by a ruptured hemangioma. This is a report of an additional case.

CASE REPORT

T.B., a 30-year-old male, Chinese, was admitted to the Chinese General Hospital in Manila on Dec. 14, 1958, because of weakness of the right side of the body. On wakening the morning of his admission he experienced for the first time “soreness” in the region of both shoulder blades. He was unable to finish a shower because the soreness progressed to deep pain radiating to the medial aspect of the right arm and down to the tip of his small finger. Later that day, he was numb and paralyzed from the medial aspect of his right upper extremity down to his foot.

Neurological examination by his attending physician, Dr. Kenneth Yap, was reported as follows: “ Cranial nerves intact. Motor system: except for a certain degree of flexion weakness of the fingers of right upper extremity, this extremity can move at will. Right lower extremity: flaccid, complete paralysis. There is no definite sensory level. Deep tendon reflexes are active but equal. Plantar responses are both extensor. Patient has moderate meralgia rigidity.”

On Dec. 16, 1958, 2 days after onset of his illness, he was transferred to the Santo Tomas University Hospital, at which time he was seen in neurosurgical consultation.

Examination. He was a fairly developed, fairly nourished tetraplegic, on continuous drainage of urinary bladder, who was conscious, coherent and cooperative. Blood pressure was 130/70, pulse rate, 90. Respirations were shallow and at a rate of 27/min. Temperature was 98°F. There was a sensory level at C8 dermatome on both sides; below this level all modalities of sensation were lost. Very slight uncoordinated flexion of both forearms could be accomplished, but below this level of motion, except for shallow abdominal breathing and occasional peristaltic sounds, nothing more could be performed. Biceps reflexes, though present, were depressed equally. Below this level, neither pathological nor physiological reflexes could be observed.

It was elicited that he had had pulmonary tuberculosis 7 years previously but “got well” after treatment with streptomycin and an artificial pneumothorax.

Laboratory Findings. Complete blood count and urinalysis were within normal limits. Lumbar puncture showed an opening pressure of 110 mm. of water. The cerebrospinal fluid was clear and colorless; total cell count was 9; total protein was 42 mg. per cent; Pandy was negative. Jugular compression with cuff dynamics showed a complete block. Roentgenograms of the whole spine showed no malformation, erosion, fracture, or abnormal calcification. Films of the chest revealed “small fibrotic lesions in the upper lobes of both lungs.”

Clinical diagnosis: Spinal extradural abscess; tuberculosis?

Operation. Under endotracheal anesthesia, with the patient in the lateral position, the spinous process of the 6th cervical vertebra was identified by a marker set up on a portable roentgenography apparatus. Laminctomy of C6 revealed a “currant-jelly” clot which depressed the dura mater to about 1 cm. This clot extended underneath the lamina of C7. Laminctomy of C7 and T1 showed at their junction two fairly large aniomatous lesions. Both were cauterized and excised. The whole blood clot was removed by cup forceps and suction. On opening the dura mater, subarachnoid pulsations were found to be normal but the cord was slightly depressed. The arachnoid was nicked, and a No. 10 catheter was slipped with ease above and below the level of the lesion. The operative field was closed tightly in layers.

Pathological Report (Dr. Augusto Ramos). “The surgical specimen consists of several irregular, brownish to whitish, soft, and partly friable pieces of tissue, the largest of which measures 0.6X0.4X0.1 cm. . . .

Microscopic sections show congeries of diminutive and dilated vascular channels filled with erythrocytes, with interspersed areas of partly fibrotic islets of fatty tissue. Zones of organizing hemorrhage are also noted. There is no evidence of malignancy. Diagnosis: Hemangioma with organizing hemorrhage.”

Postoperative Course. Three days after laminctomy sensibility of deep muscles was perceived throughout the body. In another 3 days very weak extension of both arms and left toe appeared, and a day later, extension of the right toe. From here on, movements and sensation of all extremities gradually progressed to the point of the patient being able to sit up on bed alone on the 43rd postoperative day. His urinary bladder functioned voluntarily after a 3-week bladder-training program. He was able to get out of bed and ambulate in the ward 38 days after operation, but there was tremendous spasticity of the right lower extremity. He resumed his work as a salesman 12 months after operation. Twenty-six months after laminctomy his neurological status was normal except for slight spasticity of the right lower extremity, with a Babinski's sign.

DISCUSSION

The patient presented was tetraplegic for more than 24 hours so that the slow return of neuro-
logical function was not surprising. The delay of neurosurgical consultation may be accounted for by the fact that the patient’s ailment originally was diagnosed as “myelitis.” The problem of early diagnosis and early laminectomy in these cases has been emphasized previously by other authors.9-11 The difficulty in establishing a diagnosis is increased by the fact that there is little, if any, description of these lesions in textbooks of neurology.

In regard to myelography in this case, it is the writer’s belief that cervical myelography could have produced disastrous results by hyperextension of the neck, as is done when one attempts to direct the contrast medium to the cervical canal. The progressive nature of the lesion, the findings on neurological examination, the result of the cerebrospinal fluid dynamics and cytology, were sufficient evidences to conclude that the cord was near collapse by an expanding mass at the cervicodorsal junction.

That extradural spinal bleeding can be predicated on the basis of a hemangioma, seems certain.1-5,7-9 The fact that the pathological examinations of some authors6,10 did not reveal hemangioma does not necessarily mean that such lesions can not be pointed to as the source of hemorrhage.

In the majority of instances, the symptoms and signs are heralded by a slight trauma. In some, rupture occurs during pregnancy, while in others, bleeding occurs without a known antecedent—spontaneous, as in the case reported.

SUMMARY

1. An additional case of spinal extradural hemorrhage—the first case in the Philippines to be recorded—is described herein.

2. Hemangioma is the probable pre-existing lesion that gives rise to hemorrhage.

3. Hemorrhage occurs after a slight trauma, during pregnancy or may occur spontaneously.

REFERENCES


