SPINAL PERIPACHYMENINGITIS (EPIDURAL ABSCESS)
REPORT OF 8 CASES
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(Received for publication September 14, 1959)

Spinal peripachymeningitis, known also as external pachymeningitis, is an inflammatory process of the epidural tissue and the dura mater. The process is usually of a purulent, granulomatous character. Tuberculous granuloma of the same location has as a rule been excluded from this entity. Data on peripachymeningitis were summarized by Schmalz on the basis of 2 of his own and 41 cases from the literature. Lesions in which pus is found are distinguished by some authors from epidural granuloma or chronic pachymeningitis and labelled epidural or extradural abscess. Terms like perimeningitis, peridural phlegmon, purulent perimeningitis, "épidurite" and other similar names have also been used.

Spinal peripachymeningitis is relatively rare. Between 1948–1957 8 patients were operated on for this disease in our clinic. In a paper, also covering a period of 10 years, Juhász reported 9 cases, 2 of them following typhoid fever.

Successful treatment is dependent mainly on early diagnosis. The development of the disease may be seen by the surgeon as a complication of a simple suppuration in another organ, or by the internist as the cause of vague abdominal or thoracic pain.

CASE REPORTS

Case 1. K.V., a 17-year-old male, had had a furuncle in the back for 4 days, which had been opened. He had onset of fever, headache, and pain in the back 2 days before admission. He was unable to stand up and had urinary incontinence of 1 day’s duration.

Examination. The orifice of a furuncle was in the left lumbar region. There was paresis of the lower extremities, the degree of which could not be determined because of pain on movement. The left ankle jerks was absent. Other tendon reflexes in the lower extremities were diminished. Lasègue’s sign was positive on both sides. Hypesthesia was found on the left from L3 dermatome down. His temperature was 38°C.; red blood cells 3.5 million; hemoglobin 76 per cent; white blood cells 8,000; sedimentation rate 1/25.

Operation. The neurologic syndrome and the febrile state indicated that the purulent process in the lumbar region had involved the dural sac. Therefore no lumbar puncture was done but laminectomy at the level of L2-S1 vertebrae was performed immediately (Dr. Mérei). Thin pus and proliferated loose tissue were found around the dura mater. After their removal and irrigation with penicillin, a drain was placed in and the wound was closed.
Culture of the pus yielded *Staphyloococcus aureus*.

**Course.** Following a regime of penicillin for 24 days the temperature dropped to normal. The patient became symptom-free and was discharged after 1 1/2 months.

On re-examination 5 years later he was free of complaints and working as a driver of a bus. The left knee jerk was absent; plantar reflex was equivocal.

**Case 2.** J.B., a 48-year-old male, had onset of shivering and vomiting, and rise of temperature to 38°–40°C. He had pain in the waist radiating to the groin and the anterior surface of both thighs. He was transferred to our department from another hospital on the 7th day of his illness.

**Examination.** There was tenderness on percussion at the level of the 1st lumbar vertebra. Moderate nuchal rigidity and stiffness of the spine were found. Any movement of the spine caused pain. There was increased lumbar lordosis. The degree of weakness in the lower extremities could not be estimated, because the patient, fearful of pain, would not use them. He could stand up and walk a few steps if assisted, but his movements were rather unsteady. Deep reflexes in the lower extremities were partly absent. Abdominal reflexes could be elicited only in the lower third of the abdomen. There were no sensory disturbances.

Lumbar puncture could not be carried out because of the increased lordosis. Cisternal puncture yielded clear colorless fluid. Pandy was opalescent, and Nonne-Apelt was negative. Cell count was 20/3 small lymphocytes, 20/3 large lymphocytes, and 12/3 macrophages; total protein 25 mg. per cent and mastic 0-0.

**Course.** In view of the fact that his paresis had been increasing without any sensory change, poliomyelitis was suspected and the patient was transferred to the isolation department. There an attempt at lumbar puncture yielded pus and he was readmitted to our clinic.

**Operation.** On the 19th day of illness laminectomy of L1-L5 vertebrae was performed (Prof. Környey). The dura mater was covered with bluish tissue. After its removal the gap was irrigated with penicillin, a drain was placed in and the wound was closed.

Culture of the pus yielded a growth of hemolytic *Staphyloococcus aureus*.

Red blood cells 3.7 million; hemoglobin 81 per cent; white blood cells 11,000 c. mm.; sedimentation rate 1/98 mm.

**Histologic Report.** Sections showed transformation of epidural tissue into a more or less compact mass of proliferated tissue containing large amounts of lymphocytes, macrophages, and plasma cells with few polymorphonuclear leukocytes.

**Course.** After 1 1/2 months the patient was discharged with slight paresis and diminished reflexes in the lower extremities.

Three years later he was readmitted with the complaint of general nervousness and was under observation for 10 days. In the lower sacral dermatomes hyperesthesia and from L4 down anesthesia were found. Neither paresis nor alterations of reflex or muscle tone were present. Roentgenograms of the spine revealed spur formation on both sides at the lower edge of D11 vertebra, and between L5 vertebra and the os sacrum.

Six years later he had no complaint.

**Case 3.** A.P., a 34-year-old male, was admitted with a history of malaise of 10 days' duration. He first felt pain in his waist radiating to the abdomen and both hips. In a few days his temperature had risen to 39°C. which was followed by stiffness of the neck, numbness and weakness in the lower extremities, and retention