LUMBAR AND SACRAL CYSTS CAUSING PAIN*

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We have discovered in about 1 of each 100 patients operated upon after a diagnosis of low lumbar disc rupture a red herring consisting of a lumbar or sacral cyst. These cysts are fluid-filled swellings within the nerve or arise from the dura as meningoceles and compress a cauda or a nerve tract as it emerges from the dura. After Tarlov described this lesion in 1948 we recognized its significance.

Our first experience with such a lesion occurred in 1942. The patient, a white female 58 years old, presented a typical history and signs of a lumbo-sacral disc rupture, with pain and hypesthesia in the area of distribution of the left 1st sacral nerve. Air myelograms were not helpful. At operation a herniated nucleus was not found, but a cystic swelling, 1.5 cm. in diameter, was uncovered in the 1st sacral nerve beneath the upper edge of the sacrum. The overlying sacrum was rongeured away but the mass was not disturbed. The patient was unrelieved of her discomfort.

In 1949 Dr. Frederick Fischer, the orthopedic surgeon, was doing a fusion on a patient with spondylolisthesis and called us into the operating room after the sacrum was exposed. Two areas of erosion in the left upper sacrum were seen overlying cysts in the 1st and 2nd sacral nerves. The cysts were about 1.5 and 2.5 cm. in diameter, respectively, and the overlying sacrum was paper-thin. The cysts were not molested but were left uncovered. The patient did not complain of immediate postoperative pain but died suddenly 1 month after operation, presumably from a pulmonary embolism.

The findings in 3 patients who came to exploratory surgery during 1950 we believe throw some light on the development of these sacral cysts. Whereas the cyst described by Tarlov and those we saw earlier appeared smooth, as if of long standing, the findings in these patients suggested that the lesions were acute and had developed recently within a short period of time.

REPORT OF CASES

Case 1. J. McG., a white male 42 years old, was a heavy, muscular foreman who had been troubled with recurrent back pains for a year. Five days prior to admission he had experienced excruciating pain in his back and left leg while bending over to feed his dog. The left ankle jerk was absent, raising the left leg was impossible because of pain, and hypesthesia was present over the left 1st sacral distribution. Because of the unremitting pain the lumbosacral space on the left was explored. A herniated nucleus was not found. However, the 5th lumbar lamina was markedly


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mobile. The 1st sacral nerve was covered with granulation tissue and was swollen to a diameter of 1.5 cm. at one point just below the upper edge of the sacrum. In appearance, the swelling suggested local trauma to the nerve and we speculated that such trauma could be associated with the abnormally mobile 5th lumbar lamina. The sacrum was unroofed over the bruised swelling in the nerve. The patient was advised to have a fusion but he was free of pain postoperatively and elected to wait.

Case 2. V. McC., a slight, athletic white female 46 years old, was admitted with a one-day history of severe low back and left leg pain. Since a fall while dancing in a night club some years previously, she had been troubled with episodes of moderate low back pain, although they had not been disabling. On examination lumbar tenderness was not present. Raising the right leg produced pain in the left buttock. Both ankle jerks were absent. There was hypesthesia over the 1st sacral distribution on the left. After 10 days of orthopedic observation, manipulation and traction, the pain increased in severity and myelograms were obtained (Fig. 1). The 4th and 5th laminae were removed and the dura was opened. A soft mass, about 1 inch in diameter, was found compressing the cauda extradurally in the 5th lumbar nerve. The nerve was sectioned above and below the swelling and the mass was removed (Fig. 2). The lesion was thought to be a neurofibroma, but on section it was found to consist of a hemorrhage into the nerve (Figs. 3 and 4). The patient was entirely relieved of her pain.

Case 3. R.C., a white female 48 years old, was first admitted with a history of back and left leg pain for over 20 years. Eighteen months previously she had been in an automobile collision, following which she was incapacitated by the low back and left leg pain. Neurological findings suggested an impingement of a herniated