Intramedullary hydatid cyst

Case report

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Although diminishing in frequency, hydatid cysts are still one of the causes of spinal cord compression. They usually occur in the body and laminae of the vertebrae. Less common are the primary epidural forms. There have been five such cases seen in this service, and they constitute 2% of all histologically verified expanding intraspinal lesions.

In 1967, Acquaviva, et al.,3 reviewed eight cases of extramedullar subarachnoidal cysts; these included three reported by Deve,7 four single cases,4,5,6,11 plus one observed by them with Bertrand. A ninth case, published by Carrea and Murphy,6 could also be added.

However, except for a disputable case mentioned by Montansey10 in 1827, we have not found in the literature any other reference to an intramedullary hydatid cyst.

Case Report

A 28-year old man was admitted to the Regional Neurosurgical Service of the Social Security of Barcelona in November, 1967, because of urinary incontinence, severe leg pain, and paraparesis of a few months duration. He had had an operation for hydatid cyst of the lung.

Three years before admission he suddenly had transient bilateral sciatica. Six months later urinary incontinence began. Pyelography showed distension of the bladder and this was surgically treated by partial resection of the bladder, with no improvement in sphincter control. A few months before admission the radicular pain increased, the urinary incontinence became more severe, and the patient developed a progressive paraparesis with paresthesias in both legs.

Examination. During the neurological examination the patient complained of pain from pressure on the lumbar spine. There was paraparesis, mainly distal, with hypotonia, loss of tendon reflexes and diminution of all forms of sensation as high as the distribution of L-5. Plain x-ray films of the spine were normal. Lumbar puncture showed a complete block. The cerebrospinal fluid contained 7 lymphocytes and a myelography revealed a block of the contrast medium at L 1–2.

First Operation. In December, 1967, a complete laminectomy of T-12 and L-1 was performed, and a widened and distended conus medullaris was found. Puncture through the median raphé encountered clear fluid containing 4 lymphocytes per cu mm and 13 mg% of protein. A syringostomy was performed and drainage established through a 2 mm gauge polythene tube, using the same procedure we generally employ in the treatment of syringomyelia. We used an original test previously described9 that consists of performing the Queckenstedt test after the polythene tube has been introduced into the intramedullary cavity. In cases of hydromyelia, a large amount of CSF flows out; but when the cavity is not connected to the ven-
tricular system as in cases of syringomyelia or other varieties of cord cavitation there is no such flow. In our case the test was negative (no flow).

First Postoperative Course. After the operation the patient slowly improved and was sent to the Rehabilitation Center. But 4 months later he was referred back to us with a complete paraplegia.

Second Operation. The operative wound was reopened and, again a distended cord was found. The polythene tube used for syringostomy was removed. A myelotomy through the median raphe was performed and a cystic mass found at a depth of 3 mm. A hydatid cyst 6 cm long and 1 cm in diameter was completely removed. Histologic studies showed the typical hydatid membrane, without scolex, hooks, or vesicles (Fig. 1).

Second Postoperative Course. Eight months after the second operation the patient remained paraplegic.

Discussion
The fact that hydatid cysts of the spine or cord are consistently unilateral makes one think that the parasitic embryo circulating in the bloodstream enters through an intercostal artery. It is difficult to explain the intermedullary location. Generally, spinal hydatid cysts consist of a membrane containing a great number of vesicles; in our case, as in most cerebral forms of parasitic cysts, there were no “daughter” vesicles.

The fact that the patient had previously had a pulmonary hydatid cyst made us think of spinal echinococcosis. At the first operation the diagnosis was syringomyelia, and when the symptoms reappeared 4 months later, we believed they were caused by an intramedullary glioma. At the second operation the hydatid cyst was completely removed, but the neurological symptoms did not improve.

Summary
We have briefly described what we think is the first reported case of a true intramedullary hydatid cyst. A test that facilitates the differentiation between syringomyelia and hydromyelia during surgery has also been described.

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Acquaviva for his valuable review of the literature.

References
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