СЛУЧАЙ ИЗ ПРАКТИКИ

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Achmad Adam, (MD., PhD)[1], Muhammad Zafrullah Arifin, (MD., PhD)[1] Rully Hanafi Dahlan, (MD., MSc)[1] Ahmad Faried, (MD., PhD)[1] Agung Budi Sutiono, (MD., PhD)[1] and Junichi Mizuno, (MD., PhD)[2]

Department of Neurosurgery, Faculty of Medicine, Universitas Padjadjaran-Dr Hasan Sadikin General Hospital, Bandung, Indonesia[1]
Department of Neurosurgery and Centre for Spine – Spinal Cord Disorders, Southern Tohoku General Hospital, 1-2-5 Satonomori Iwanuma, Miyagi, Japan[2]

MULTIPLE SPINAL EXTRADURAL MENINGEAL CYSTS PARTIALLY ASSOCIATED WITH A DURAL DEFECT

Introduction. *Spinal extradural meningeal cysts, extradural outpouchings of the arachnoid that communicate with the intraspinal subarachnoid space through a small dural defect, are relatively uncommon.*
Case Report. *We report a case of 35-year-old man with multiple spinal extradural meningeal cysts in the thoracolumbar region. The operative findings revealed a dural defect in one of the cysts that allowed communication between the extradural cyst cavity and the subarachnoid space. Application of the Valsalva maneuver allowed cerebrospinal fluid to flow into the cyst's cavity; however, reverse flow did not occur.*
Result. *These findings indicate that a valve-like mechanism developed in the enlarging cyst, but there was no communication between the extradural cyst cavity and the subarachnoid space in the other cysts.*
Conclusion. *The number of independent cysts makes this case unique and suggests an underlying defect in the dura of the spinal canal in a limited region. Surgical resection of the cyst wall and closure of the dural defect obtained a favorable result.*
Key Words: *Spinal extradural cyst, Neurological deficits*

Introduction

Spinal extradural meningeal cysts are rare and are seldom a cause of spinal cord compression. They are thought to arise from congenital defects in the dura mater, they almost always communicate with the intrathecal subarachnoid space through the small defect in the dura [1-3], and they have been described as arachnoid cysts, pouches, and diverticula [4, 5]. These meningeal cysts are rare and may occur at all levels of the thecal sac. Spinal meningeal cysts are classified into three major categories: extradural cysts without nerve root fibers (Type I), extradural cysts with nerve root fibers (Type II) and intradural cysts (Type III) [6].

Spinal meningeal cysts are most common in the thoracic spine. When the spinal cord develops enlarging cystic cavities and spaces, the treatment is exclusively surgical [7-9]. These cysts are found predominantly in males [1-3]. The clinical presentation ranges from asymptomatic to pain, weakness, numbness, paralysis, and paralysis. The symptoms tend to occur during the second decade of life [1-3]. Patients usually present with progressive spastic or flaccid para- or quadriparesis [1-3]. Approximately 10% of patients present with monoparesis [1]. Sensory deficits are less prominent [10]. The clinical symptoms develop over months [2], although partial relief may occur in more than one-third of the patients [3]. Some cases are associated with long-term remission that extends for years [11].

Reciprocal obstruction and recanalization are thought to mediate remission and relapse [11, 12]. Nontraumatic spinal extradural meningeal cysts are thought to have congenital, iatrogenic and inflammatory etiologies [1-3, 4, 6]. Cyst expansion is thought to be due to active secretion of the internal cell lining [2], an osmotic spinal gradient between the subarachnoid space and cyst [3, 12], pulsatile cerebrospinal fluid (CSF) dynamics [4, 6], active fluid secretion, hydrostatic forces and valve-like mechanisms [1, 3, 4, 5, 13]. Active secretion by the inner cell lining has never been proven, and this hypothesis has been discredited [1, 3].

Case Report

A 35-year-old man was referred to our hospital with a six month history of progressive bilateral leg weakness. Five years prior to admission, he occasionally experienced intermittent urinary incontinence, and three years prior to admission, he complained of problems with defecation. He had no history of infection or trauma.

Examination

On examination, we found no cutaneous stigmata of neurological disease and no dysmorphic features. The patient had no evidence of phacomatosis. Neurologically, the muscle strength of his right leg reduced to Grade 3+/3+. Bilateral upgoing plantar responses were present. Clonus was present at the both the patella and the ankles. There was hypoesthesia in small mid-thigh areas bilaterally and on the dorsal side of the left foot.

Laboratory and Radiological Examinations

Routine laboratory tests yielded normal results. Thoracolumbar vertebral roentgenograms (Th7-L2) revealed an enlarged interpedicular space. Magnetic

Achmad Adam, MD., PhD, E-mail: achmadadam@yahoo.com