A.G. Markhaev, M.V. Badleeva

UNUSUAL CASE OF IN VIVO DETECTION OF INTRADURAL INTRAMEDULLARY TUBERCULOMA

ABSTRACT

The article presents a review of the literature about observations of spinal tuberculomas. Intramedullary spinal tuberculoma – thus is a rare diagnosable form of extrapulmonary tuberculosis. Review of the literature describes about 40 patients with spinal cord tuberculoma. In 1956, Cascino and Dibble identified intramedullary spinal tuberculoma of a patient. MacDonell et al. reviewed about 20 cases of this disease for 30 years. Fifteen cases of spinal tuberculosis were reported by Ramdurg et al. In clinic there are extradural and intradural forms of spinal tuberculoma. Intramedullary tuberculosis occurs ten times more often. In the pathogenesis of the development of intramedullary spinal tuberculoma it may be blood- dissemination and the spread of MBT through the cerebrospinal fluid are possible. According to some data, they are detected more often in women. Intramedullary tuberculomas were not previously diagnosed in Buryatia.

The purpose of the study: a description of the clinic and methods of diagnosis of intraspinal tuberculoma.

The materials of research described a history of the clinical picture of a 34-year-old patient with a relapse of pulmonary tuberculosis in 2003, with the formation of fibrous-cavernous pulmonary tuberculosis in 2013 in TBC (+) II B GDU, MLU-HRS.

During hospitalization in the hospital there were neurological symptoms with deterioration.

After screening of the chest organs on both sides by X-ray tomograms, on the right revealed multiple confluent polymorphic focal shadows with decay cavities were discovered more. Neurological status: cranial nerves without pathology. Neurologically - muscle tone is sharply reduced in the lower limbs, reflexes are sluggish. Cerebellar tests, sensitivity testing without pathology, meningeal and radicular symptoms have not been identified.

On MRI with contrasting at the level of Th3, intramedullary a volumetric formation with a ring-shaped accumulation of contrast with dimensions of 7x8 mm was discovered. It was small infiltration perifocally.

Based on this data, a diagnosis of spinal cord tuberculosis was exposed. Pathologic examination was confirmed the diagnosis.

In result findings showed that a patient with widespread respiratory tuberculosis, against the background of blood- dissemination in the lungs, nerve tuberculosis was joined – this is intramedullary tuberculosis with typical neurological symptoms and diagnosis of spinal cord lesion became possible using the magnetic resonance imaging with contrast.

Keywords: tuberculoma, spinal cord, MRT, Buryatia.

Introduction. Tuberculosis remains an important pathological problem in developed and developing countries [1]. According to some estimates, part of the central nervous system in patients with tuberculosis is about 10%, with the most common manifestation of tubercular meningitis. Spinal tuberculoma is also a manifestation of extrapulmonary tuberculosis involving the central nervous system and characterized as jekstraduralnaja or intramedullary, depending on their location [2.3].

Extramedullary tuberculoma is extremely rare. In literature, it was found only 30 such localization tuberculoma.

Tuberculoma tuberculoma is also a rare form of the disease. In the world described more than four dozen cases of tuberculoma of the spinal cord. Cascino and Dibble in 1956, for the first time described the intramedullary spinal tuberculoma [7]. MacDonell et al. for 30 years have identified 18 cases of this pathology [8]. Ramdurg et al. for 21 year presented 15 cases [9]. Intramedullary spinal tuberculoma develops due to hematogenous dissemination of the pathogen or infection of spinal fluid. The ratio of intracerebral tuberculoma to spinal is 42 to 1 [5]. Among women the pathology occurs more often [11, 12, 13]. In Buryatia intramedullary tuberculoma was not previously diagnosed.

The purpose of the study: description of the clinical picture, diagnosis methods, intramedullary tuberculoma.

Materials research. Patient n., 34 years old man in his childhood had primary tuberculosis. Relapse of tuberculosis identified in 2003 year, in places of deprivation of liberty (MLS), short courses of treatment ineffective. To 2013 year formed a fibro-cavernous pulmonary tuberculosis BK + II b GDU, MDR-HRS. In December 2014, in connection with the grave condition of the patient was released for health reasons.

He entered the hospital with complaints of paraplegia, lack of control over the functions of the pelvic organs, chills, fever, weight loss, expressed by general weakness, cough with phlegm. From the history it was established that appeared a few months ago pain in thoracic and lumbar spine. The condition worsened: pain in the spine exacerbated, weakness in the limbs, growing to no active movements in the lower extremities. Pelvic dis-

Fig. 1. Review lung X-ray

Fig. 2. Lung CT

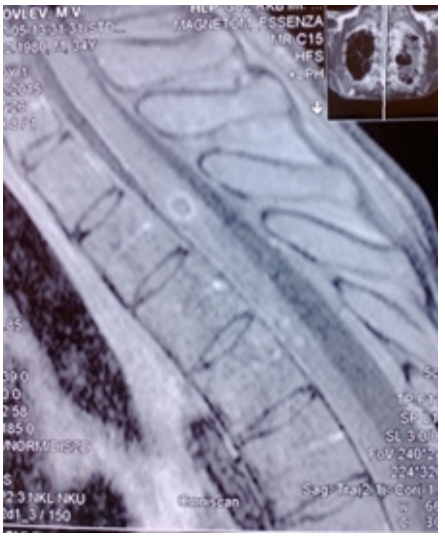

Fig. 3. MRI of the spine

order not noted.

Diagnosis at admission: disseminated pulmonary tuberculosis in the disintegration phase of MBT (+), MDR – HRSPas, 11B GDU. Cachexia, multiple organ failure.

On the X-ray tomograms of the chest, there is a presence on both sides of more to the right of multiple polymorphic focal shadows, cavities with thick walls on both sides (Figure 1, 2).

Neurological examination noted that the cranial nerves are not affected by the pathological process. Muscle tone is reduced in all the limbs, reflexes are sluggish. Cerebellar tests, sensitivity testing were normal, meningeal and radicular symptoms were not revealed.

With MRI with intravenous contrasting, omniscan revealed at the level of Th3 a volume formation with a ring-shaped accumulation of contrast measuring 7x8 mm. Perifocal small infiltration (Figure 3).

Differential diagnostics was performed between new formation, multiple sclerosis and spinal tuberculosis.

Cerebrospinal fluid analysis was not performed due to patient failure. Based on the data obtained, a diagnosis of spinal cord tuberculosis was made. Tuberculosis therapy did not produce results due to the serious condition of the patient, a far-gone tuberculosis process. The patient died of tuberculosis. Pathologic examination confirmed the diagnosis.

Results and discussion

In a patient with chronic widespread pulmonary tuberculosis, due to refusal of treatment on the background of hematogenous dissemination in the lungs, the nervous system tuberculosis joined - intramedullary tuberculoma with typical neurological symptoms.

Diagnosis of lesions of the spinal cord has become possible due to the use of magnetic resonance imaging with contrast.

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The authors

Buryat State University, Ulan-Ude, Russia.

Markhaev Andrey Grigorievich - Candidate of Medical Sciences, Senior Lecturer of the Department of Infectious Diseases of the Medical Institute of the FSBEI HE "Buryat State University", e-mail: marhaev50@mail.ru, tel. 8902563-09-15.

Badleeva Maria Vladimirovna - Candidate of Medical Sciences, Associate Professor of the Department of Infectious Diseases of the Medical Institute of the FSBEI HE "Buryat State University", e-mail: mbadleeva@mail.ru, tel. 8902563-90-71.