Large Retropharyngeal Abscess Associated with Cervical Spine Tuberculosis

Amit Agrawal1, Vissa Santhi2, Gali Prakash Vignan Kumar3, Yashwanth Sandeep1

1Department of Neurosurgery, Narayana Medical College Hospital, Chinthareddypalem, Nellore, Andhra Pradesh (India)
2Department of Pathology, Narayana Medical College Hospital, Chinthareddypalem, Nellore, Andhra Pradesh (India)
3Department of Pulmonology, Narayana Medical College Hospital, Chinthareddypalem, Nellore, Andhra Pradesh (India)

Abstract

The authors report a case of a 25-year-old man who presented with the history of neck pain and weakness of the right hand of 6-month duration. He had history of fever with evening rise in temperature, loss of weight, and cough. Radiologic investigations of the cervical spine showed collapse of the C5 vertebral body and partial destruction of the C4 and C6 vertebral bodies with kyphotic deformity and a large retropharyngeal hyperdense collection. The patient underwent drainage of the abscess, and the histopathology was suggestive of tuberculosis. He was started on antitubercular treatment and doing well at follow-up.

Keywords
- abscess
- tuberculosis
- retropharyngeal abscesses
- Pott's spine

In traditional settings, Retropharyngeal abscesses are uncommon complication of spinal tuberculosis and can lead to potentially life-threatening airway compromise. A 25-year-old man presented with the history of neck pain radiating to left upper limb and weakness of the right hand of 6-month duration. He had history of fever with evening rise in temperature, loss of weight, and cough. Radiologic investigations of the cervical spine showed collapse of the C5 vertebral body and partial destruction of the C4 and C6 vertebral bodies with kyphotic deformity and a large retropharyngeal hyperdense collection. The patient underwent drainage of the abscess, and the histopathology was suggestive of tuberculosis. He was started on antitubercular treatment and doing well at follow-up.

Retropharyngeal abscesses occur either due to tuberculosis involvement of lymph nodules at the base of the skull or masticator space resulting in pharyngeal edema and causing obstruction to the airway. There was generalized pain and discomfort over the cervical spine. Lateral radiograph of the cervical spine showed collapse of the C4 and C5 vertebral bodies with kyphotic deformity (Fig. 1). Magnetic resonance imaging of the cervical spine showed collapse of the C4 and C5 vertebral bodies with kyphotic deformity (Fig. 2). Blood investigations were normal except raised erythrocyte sedimentation rate (40 mm Hg). Chest X-ray was normal, and the sputum examination for acid-fast bacilli (AFB) and human immunodeficiency virus (HIV) tests were negative. The patient had a positive Mantoux test. Gastrografin study was normal. He underwent right anterior cervical approach and drainage of the abscess. Because of adhesions, implant could not be placed. Pus culture was sterile. Gram's stain showed no organisms, only pus cells. Histopathologic examination of the granulation tissue showed glial tissue with granuloma-containing epithelioid cells, Langhans giant cells, and lymphocytes suggestive of tuberculosis (Fig. 3). The patient was started on antitubercular treatment and doing well at follow-up.
a diagnosis of tubercular origin should be suspected. If the abscess is large enough, it can cause drooling of saliva, dysphagia, hoarseness of voice, neck stiffness, torticollis, and airway compromise, which can lead to respiratory distress. Involvement of the vertebral bodies and neural structures can cause vertebral body collapse, extradural abscess, subluxation, and granulation tissue causing compression resulting in neurologic deficits. Imaging findings may include the increase in the size of the prevertebral shadow, presence of vertebral collapse, reduced vertebral height, narrowing of intervertebral disc space, vertebral body erosion, and loss of cervical lordosis. Gadolinium-enhanced MRI of the cervical spine further delineates details of the extent of neural structure involvement and adjacent soft tissue. Open surgical drainage is the treatment of choice for a large-size retropharyngeal abscess that is followed by antitubercular treatment. If left untreated,
the progressively increasing retropharyngeal abscess can lead to airway obstruction; the abscess can rupture; spilling of the purulent material can cause aspiration and rarely mediastinitis; there may be formation of epidural abscess, necrotizing fasciitis, jugular venous thrombosis, and sepsis; or it can cause erosion of the carotid artery.

References

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