Case Report / Olgu Sunumu

Primary nasopharyngeal tuberculosis

Primer nazofarenks tüberkülozu

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Primary nasopharyneal tuberculosis is a rare disease which is commonly present with cervical lymphadenopathy. It is hard to differenciate the diagnosis of tuberculosis from nasopharyngeal carcinoma. Histologic and bacteriologic evaluation is required for diagnosis. A male patient at the age of nineteen applied to our clinic with the complaints of a mass in the neck, congestion in the nose, night sweating and weight loss. Clinical presentation of the patient was similar to that of a malignant tumor of the nasopharynx. Histologic and bacteriologic study supported the diagnosis of tuberculosis. After antituberculosis therapy, the complaints of the patient regressed. We present a nasopharyngeal tuberculosis case in this study.

Key Words: Nasopharynx; tuberculosis; tumor.

Primer nazofarengeal tüberküloz servikal lenfadenopati ile karşımıza çıkan nadir bir hastalıktır. Nazofarengeal tüberkülozun nazofarengeal karsinomdan ayrımı oldukça zordur. Tanı için histolojik ve bakteriolojik değerlendirme gerekmektedir. On dokuz yaşında erkek hasta boyunda kitle, burunda tıkanma, gece terlemeleri ve kilo kaybı yakınmaları ile kliniğimize başvurdu. Hastanın klinik görünümü nazofarenksin malign tümörü ile benzerdi. Histolojik ve bakteriolojik olarak çalışılarak tüberküloz tanısı kondu. Uygulanan antitüberküloz tedavisinden sonra hastanın yakınmaları düzeldi. Bu yazıda primer nazofarengeal tüberküloz olgusu sunuldu.

Anahtar Sözcükler: Nazofarenks; tüberküloz; tümör.

Tuberculosis of the upper respiratory tract is uncommon, and the nasopharynx is a particularly rare site for this disease.[1,2] The inhibitory effect of saliva and the saprophytes on the tubercle bacillus may be responsible for this rarity.[3] In a large historical series of 843 cases of tuberculosis, only 1.8% of the cases showed upper respiratory tract involvoment, with only one case of nasopharyngeal involvement.[4] The diagnosis of nasopharyngeal tuberculosis is often difficult and the principal problem in this is the differential diagnosis from a malignant nasopharyngeal tumor.[5] Here, we present a patient with nasopharyngeal tuberculosis whose complaint is a neck mass. The diagnosis was confirmed by both histological and bacteriological studies.

CASE REPORT

A 19-year-old man came to our clinic with a neck mass and nasal obstruction. He also complained of night sweats and weight loss. The patient denied any history of aural fullness, rhinorrhea, epistaxis or cough. He did not use any alcohol or tobacco and had no other health problems. Neither did he have any prior history of pulmonary tuberculosis or identifiable risk factors for nasopharyngeal carcinoma.

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We performed a full otolaryngologic examination including audiologic evaluation on the patient and found out that he had a 4x4 cm mass on the left upper jugular region of the neck. A rigid nasal endoscopy was performed and a nasopharyngeal mass was shown (Fig. 1). The remainder of his otolaryngologic examination and audiologic evaluation were normal. His chest X-ray was also normal. A magnetic resonance imaging (MRI) was performed and it showed the 4x4 cm mass on the left side of the neck, settled on the upper jugular region in front of the sternocleidomastoid (SCM) muscle and the 1x1 cm mass in the nasopharynx (Fig. 2). A punch biopsy was taken from the nasopharyngeal mass and a fine needle aspiration biopsy (FNAB) was performed on the neck mass. The specimens from these biopsies were sent for histopathologic observation and culture. The histologic evaluation demonstrated epitheloid cell granulomas with caseous necrosis and multinucleated giant cells. The culture findings confirmed a Mycobacterium tuberculosis. Since there were no tuberculous lesions in other organs except the cervical lymph nodes in clinical examinations, we diagnosed the case as primary nasopharyngeal tuberculosis with tuberculous cervical lymphadenitis. He was prescribed a four-drug antituberculosis regimen consisting of isoniazid, rifampicin, ethambutol and pyrazinamide for two months. At the second month's follow up examination the patient's neck mass was considerably reduced in size. He continued to use a two-drug antituberculosis regimen consisting of isoniazid and pyrazinamide for seven months. Both the neck mass and the nasopharyngeal manifestation disappeared after three months' chemotherapy with antituberculosis drugs (Fig. 3).

DISCUSSION

Tuberculosis of the upper respiratory tract is now less common with the improvement in medical therapy, and when it occurs, it is usually caused by active pulmonary tuberculosis.[6] The Nasopharynx is not a common site for tuberculosis. Primary nasopharyngeal tuberculosis is defined as an isolated tuberculosis infection of the nasopharynx in the absence of pulmonary or systemic tuberculosis.[1] Nasopharyngeal tuberculosis seems to be more frequent in women than men. It occurs in adults, with two peaks of frequency: between 15 and 30 years of age and between 50 and 60 years of age.[2,5] Smoking and low socio-economic status were reported as risk factors.[5] However, our patient had no smoking past and he was from a middle-class background.

Two modes of contamination are described for this disease.[7,8] *(i)* Through the airway: either

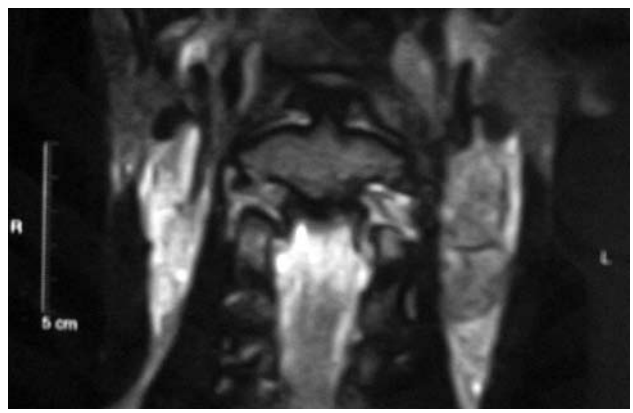

Fig. 2. *Magnetic resonance imaging showing 4x4 cm mass on the left side of the neck which was settled on upper jugular region the front of sternocleidomastoid muscle.*

Fig. 1. *Rigid nasal endoscopic appereance of the nasopharynx before treatment.*

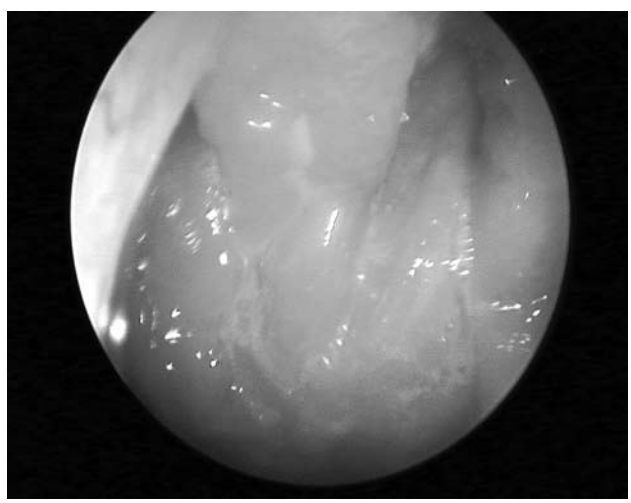

Fig 3. *Nasopharyngeal appereance after chemotherapy with antituberculosis drug.*

directly through nasal ventilation, or secondarily through canalized bacillary expectoration; *(ii)* Haematogenous or lymphatic, from a primary site, most often pulmonary. Lymphatic nasopharyngeal contamination is explained by the rich lymphatic network of the Waldeyer ring.

This double mode of contamination explains how nasopharyngeal lesions may be primary formations or secondary to lesions most often of pulmonary origin.[5] The differential diagnosis includes nasopharyngeal carcinoma, midline granuloma, Wegener's granuloma, sarcoidosis, syphilis, lymphoma, fungal infections, leprosy and periarteritis nodosa.[2,6] The diagnosis of nasopharyngeal tuberculosis is difficult and the principal problem in this is the differential diagnosis from a malignant nasopharyngeal tumor.[5] Nasopharyngeal tuberculosis and nasopharyngeal cancer can present with cervical lymphadenopathy, nasal discharge, or nasal obstruction.[1] Cervical lymphadenopathy is occur in about half of the patients.[9] Nasopharyngeal tuberculosis may not be distinguishable from these diagnoses based on MRI images alone.[10] A biopsy of the nasopharynx in a patient with cervical lymphadenopathy may establish the diagnosis.[11] Also, a PCR analysis for Mycobacterium tuberculosis DNA can be used for diagnostic purposes.[12] Prognosis of the nasopharyngeal tuberculosis is good with a well-conducted antituberculosis treatment.[5,11] The minimal period of treatment for extra pulmonary tuberculosis is six months.[11] In our patient, the antituberculosis treatment continued for nine month. At the end of this treatment, his symptoms of nasal obstruction and neck mass resolved.

In conclusion, nasopharyngeal tuberculosis is a rare condition often associated with cervical lymphadenopathy. Therefore, nasopharyngeal tuberculosis should be kept in mind in the differential diagnosis of the nasopharyngeal lesions. Biopsy is required for histological and bacteriological studies before final diagnosis.

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