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Evolution of Parotidial Tuberculosis after Medical Treatment

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Abstract:- The parotid localization of tuberculosis is extremely rare, its diagnosis is based on histological examination. We report the medical case of a 52-year-old patient with parotid swelling and whose diagnosis of tuberculosis was made on histological examination after fine needle aspiration; progress under medical treatment was marked by treatment failure and the need for surgery.

Keywords:- *Parotid, Tuberculosis, Medical Treatment.*

I. INTRODUCTION

Tuberculosis is a transmissible infectious disease caused by mycobacterium tuberculosis, by far the most common form of the lungs. The ENT location is dominated by cervical lymph node involvement; however, extranodal involvement is not exceptional among which we find the parotid localization which presents itself in the form of a misleading clinical picture confusing with other pathologies of the parotid gland, in particular tumor pathology **[1].**

II. CASE REPORT

It was a 52-year-old patient, with no particular pathological history, she presents a right parotid swelling gradually increasing in volume evolving for 1 year without associated signs in particular no asthenia, weight loss, sweating, fever, discomfort in the chewing, trismus or any pus coming out of the salivary openings. on clinical examination the patient in good general condition, right pretragial swelling, firm, painless, measuring almost 5cm long axis, fixed, no peripheral facial paralysis or limitation of mouth opening. cervical examination found lymphadenopathy of the territory 2B left firm, painless, measuring almost 2cm, mobile in relation to the 2 planes, the rest of the ENT examination is unremarkable. An ultrasound was done showing an intraparotid cystic lesion associated with lateral cervical lymphadenopathy of the left 2B territory with a necrotic center. We completed this with fine needle aspiration, although on lymphadenopathy and parotid gland showing the presence of caseous necrosis. The diagnosis of lymph node and parotid tuberculosis was made; the anti-bacillary treatment was started according to the 2RHZE and 4RH protocol, the evolution was marked by the persistence of the pretragial swelling **(fig 1)** which becomes painful, a cervical CT was made showing a right lateral cervical mass at the expense of the parotid gland containing areas of necrosis with locoregional invasion, duct dilation and infiltration of the soft parts opposite **(fig2).** cervical MRI shows a parotid enlarged in T1 hypointense and T2 hypersignal containing thick septum and delimited by a shell taking the contrast after injection of Gadolinuim product **(fig 3).** The patient underwent a parotidectomy without conservation of the facial nerve **(fig 4),** the pathological examination of the surgical specimen showing signs of inflammation.

Fig.1. clinical photography face (right) and profile (left) showing parotid tumefaction

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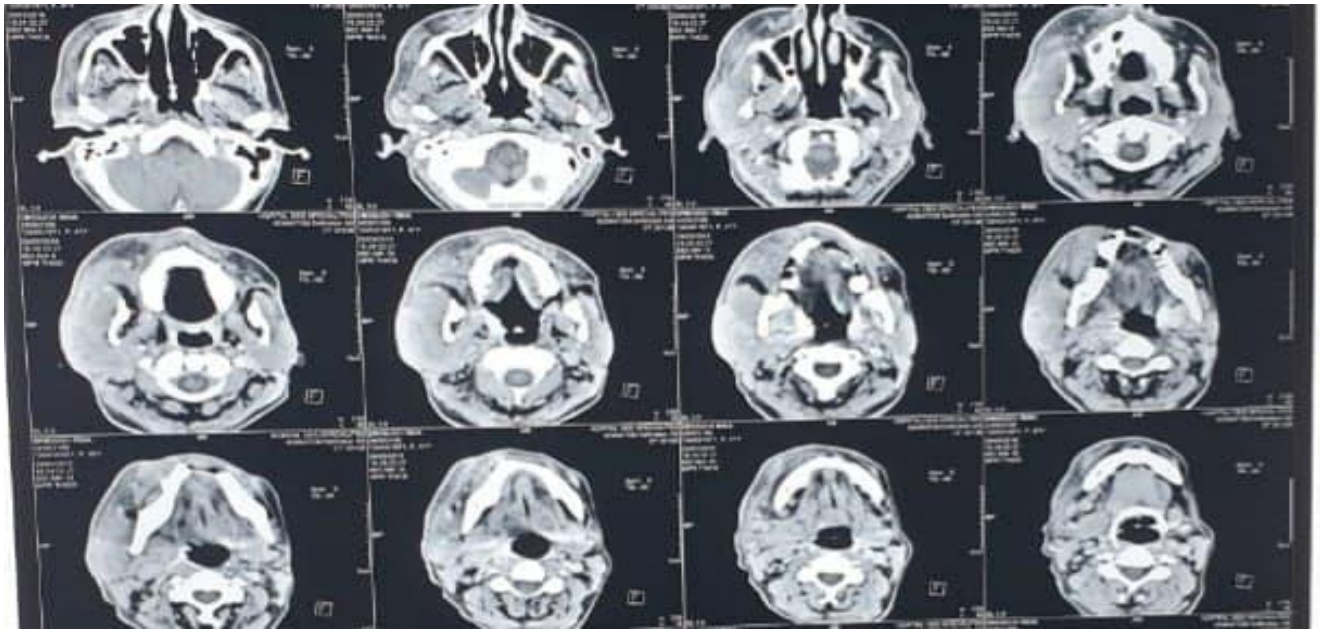

Fig.2. cervical axial CT scan showing the increase in the size of the parotid

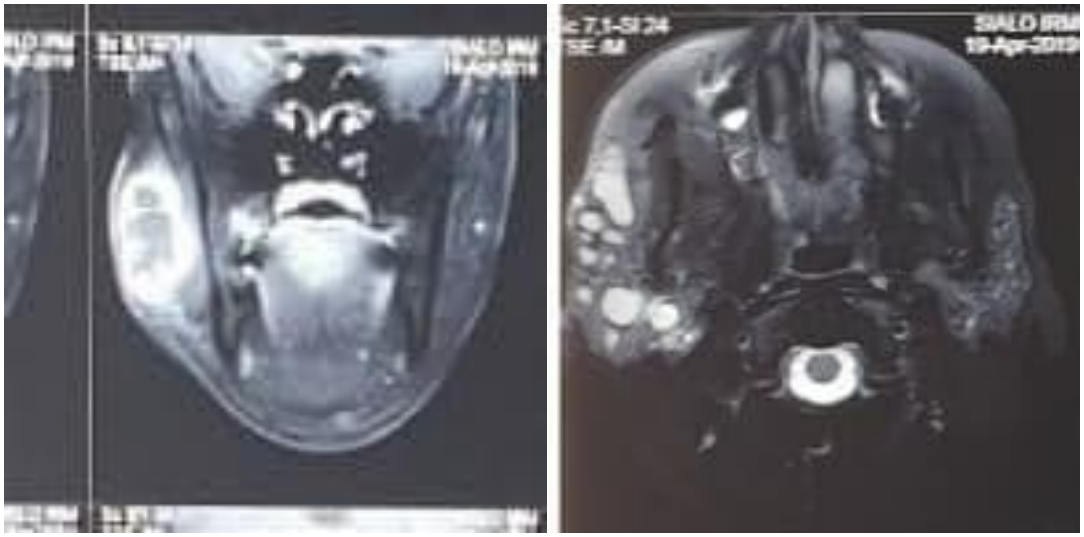

Fig.3. Cervical MRI in coronal (right) and axial (left)

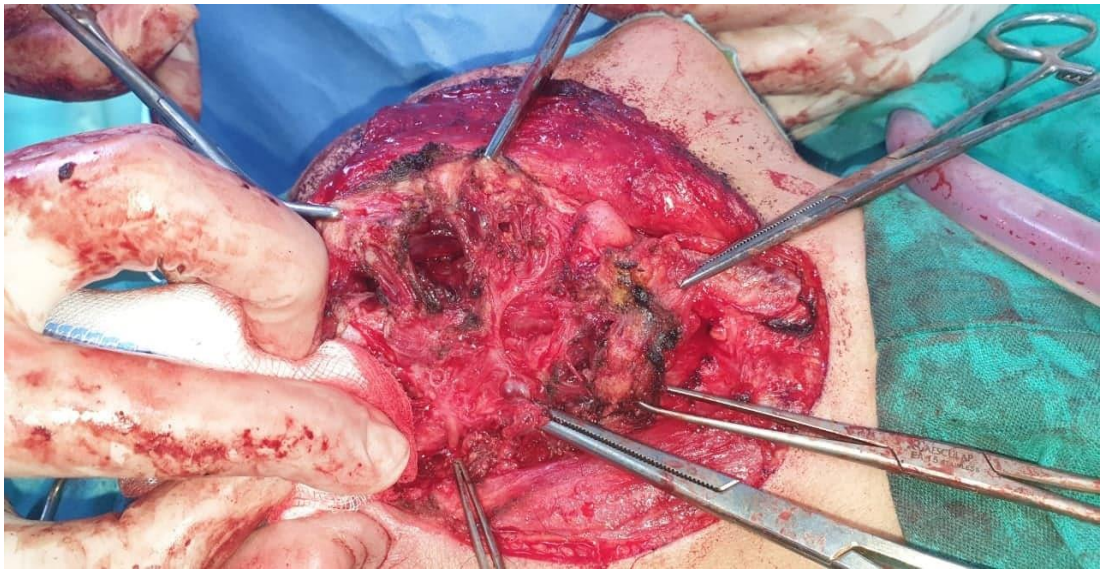

Fig.4. Photography showing parotidectomy

III. DISCUSSION

Tuberculosis is a disease with a predominant respiratory tropism that can affect all the tissues of the body with sometimes atypical localizations, lymph node tuberculosis is the most frequent form of cervico-facial tuberculosis while the parotid localization that we report in our case remains rare. This condition was first described in 1894 by VON STUBENRAUCH. In a study by PRASAD and AL **[2]** on 165 patients with head and neck tuberculosis, only three patients presented with parotid tuberculosis. OSCAN and AL **[3]** concluded that tuberculosis accounts for 2.5% to 10% of lesions of the parotid gland. It is a condition that can affect all ages, but often adults between 20-40 years old, the child is rarely affected the youngest reported case is 3 years old **[4]**, while the oldest patient was 92 years old **[5]**. Both sexes are equally affected. The clinical presentation is polymorphic and nonspecific, generally it is manifested by a firm, hard, painless swelling gradually increasing in volume, with varying degrees of fixation with respect to both the superficial and deep planes, giving a pseudo-tumoral appearance, the affected is often unilateral rarely it occurs on both glands at the same time, signs of tuberculuos impregnation are rarely present **[6]**. TALAMI et al **[7]** reported a case of painless parotid swelling with isolated cervical lymphadenopathy.

Biologically, in the majority of cases, an inflammatory syndrome is found and the tuberculin skin reaction is not always positive. Sectional imaging means: ultrasound; CT and MRI do little to contribute to a positive diagnosis. Indeed the radiological aspects are variable; it can be a tissue nodule, a cystic image, more or less associated with lymphadenopathy. However, Bhargava **[8]** reports from 100 CT images that the presence of a thick-walled lesion, strongly contrasting with necrosis in the center, is characteristic of tuberculosis. Imaging means can guide the diagnosis but histology remains the key examination to pose it, hence the interest of a fine needle aspiration which is indicated in front of any mass of the parotid to determine the nature of lesion. ISERI ET AL **[9]** concluded that in parotid lesions, fine needle aspiration has a sensitivity of 81-100% and specificity of 94-100%. In the diagnosis of parotid tuberculosis, fine needle aspiration is not always contributory because of the presence of necrosis zone in the tuberculous lesions. Dandabat et al **[10]** et lau et al **[11]** reported that fine needle aspiration has a sensitivity of 80% and specificity of 93 % when used for the diagnosis of tuberculosis. In the majority of reported cases the diagnosis required an excisional biopsy due to the difficulty of differentiating a tuberculous lesion from a malignant lesion on fine needle aspiration, franzen et al **[12]** observed that in 20 cases the fine needle aspiration allows the diagnosis to be made in only 2 cases. kim et al **[13]** in a study of 8 cases there were 5 cases that required parotidectomy for diagnosis. In our case the diagnosis was made by fine needle aspiration.

The differential diagnosis of diffuse forms includes: infectious parotitis, lithiasis and carcinoma. The circumscribed shape mainly suggests a cyst or adenitis **[14]**. Tuberculous localization in the two parotid glands is possible posing a diagnostic problem with Goujron Sjogren syndrome and sarcoidosis. In general, any parotitis resistant to antibiotic treatment should alert the clinician to tuberculosis **[14, 15].**

Regarding the treatment, from its first description in 1893 until the 20th Century the treatment required a parotidectomy. currently it is based on the antibaccillaires for a minimum duration of 6 months; this treatment is carried out in two phases: the first uses four drugs (ethambutol, isoniaside, rifampicin, pyrazinamide) for two months; in the second phase, the drugs used are ethambutol and isoniasid for seven months or isoniaside and rifampicin for four months; in our case the protocol was that of 6 months 2RHZE then 4RH; the evolution is almost always favorable. In our case, it was marked by the persistence of the swelling after the end of medical treatment and the appearance of a ductal stenosis, hence the need for a parotidectomy. In the literature, the rare cases of failure can be explained by the emergence of strains resistant to anti-tuberculosis drugs **[16].**

IV. CONCULISON

Parotid tuberculosis is a rare pathology, its diagnosis poses difficulties with parotid tumor pathology, the diagnosis is based on histology, treatment based on antibacillary, failure after medical treatment as in our case remains rare.

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