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Parotidial Tuberculosis: A Diagnostic to Remember!

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Abstract:- Primary tuberculosis of the parotid gland is a rare clinical entity, his diagnosis is not easy. It is the bacteriological and anatomopathological data that confirm this. The therapeutic management is primarily medical based on the prescription of anti-bacillary chemotherapy, in the absence of drug resistance, the evolution is generally favorable. The objective of this work is to report a new case of primary tuberculosis of the parotid gland in a child, and to recall the various challenges in the diagnosis posed by this condition.

I. INTRODUCTION

Tuberculosis is a chronic granulomatous infection caused by Mycobacterium tuberculosis or bovis it can affect all organs. At the level of the ENT sphere, lymph node involvement is the most common. The isolated location of TB in the salivary glands, including the parotid gland, is extremely rare [1, 2]. Its clinical presentation is polymorphic and non-specific. We report a case of parotid tuberculosis simulating a tumour in a young 14-year-old child, and we discuss the different diagnostic, therapeutic and evolutionary elements of this pathology.

II. CASE REPORT

This is a 14-year-old child who went to the ENT-CCF emergency department for a right parotid swelling that had been developing for 2 months, complicated 15 days before admission by spontaneous fistulization of the cervical mass with pus. the interview did not reveal any particular pathological history or notion of tubercular contage. the adolescent had received his tuberculosis vaccination by the BCG according to the Moroccan national immunization program . The clinical examination found a patient in good general condition, a swelling of the right parotid region firm and painful on palpation, measuring 4 cm long axis, with skin fistulas in sight (Figure 1), without facial paralysis or trismus. Examination of lymph nodes objectified right cervical homolateral lymphadenopathy ,the digital bi palper was normal. The rest of the ENT exam was clean. The cervical-facial computed tomography performed with 3 mm thick slices with and without injection of the contrast agent, found a global hypertrophy of the right parotid gland with hypodense necrotic zones, associated with homolated necrotic adenomaslogous subparotid and sub-mandibular homolates (Figure 2). Chest radiography performed as part of the infectious check-up was normal. The standard biological balance came back in favor of a mild inflammatory syndrome, the intradermo response to tuberculin was phlyctenular. The patient benefited from biopsy curettage under local anesthesia through the fistulous orifice with studies: bacteriological in search of germs type BAAR and anatomopathological, the latter showed a granulomatous epithelial tissue giganto-cell with caseous necrosis, culture and direct examination of the puncture fluid were negative. The patient was given antibacillary chemotherapy for 6 months with close clinical supervision , the evolution was favorable with a 4-month decrease.

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III. DISCUSSION

The parotid location of mycobacterium tuberculosis is rare, it was described the first time by Von Stubenrauchen in 1894 it is a pathology of the young adult 20-40 years often from an endemic country: 90% of cases reported [3], it occurs in the majority of cases in the context of a disseminated multifocal tuberculosis.

The scarcity of salivary gland damage from this bacterium can be explained by the inhibitory action of saliva[4] , either by a retrograde ductal route through the stenon channel from an oropharyngeal location of Mycobacterium, thus giving the focal isolated form of the disease.it must be differentiated from a lymph node location that is not exceptional.

Clinical presentation is that of a unilateral pseudotumor syndrome: parotid swelling of progressive evolution with nodular or diffuse appearance, oral opening limitation and peripheral facial paralysis are little found,as well as for signs of tubercular impregnation [3] the presence of general signs is a great aid for diagnosis especially if they are associated with an evocative context:endemic area,tubercular contage [3]. The existence of an inflammatory sign with possible skin fistulization is highly suggestive of the infectious and inflammatory origin . This is similar to our clinical observation: the patient had a right parotid swelling that had been evolving for 2 months, complicated with inflammatory signs and skin fistulization.

Imaging lacks specificity and ultrasound, CT and objective MRI either a nodular lesion of a tissue or cystic nature or a diffuse infiltration of the gland evoking a sialadenite the existence of intraparotid lymphadenopathy or latecervical lymphadenopathy is common. Our patient presented with diffuse parotidomegaly with necrosis zone as well as cervical lymphadenopathy.

Other paraclinical examinations are rarely requested and do not allow the diagnosis to be made, in particular sialography or scan with technecium 99m or gallium67 chest radiography is requested to detect a possible lung localization, the positivity of intradermal tuberculin treatment is not constant [2,5] in our case the RDI was positive.

Thus the clinical and radiological picture poses a problem of differential diagnosis with other tumor etiologies , inflammatory only the anatomopathological study confirms the tubercular origin of a parotid lesion by highlighting a cellular epithelial giganto granuloma with caseous necrosis [5]. Fine needle cytopuncture has a specificity of 81% and a sensitivity of 94% [5],thus its positivity avoids a parotidectomy with risk of damage to the facial nerve,The development of biological techniques, including PCR – an expert gene, contributed to the identification of the bacterial genome from the puncture fluid [6].

Bilateral involvement is infrequent and often leads to suspicion of system disease. Only histological examination will guide the diagnosis can be made from a well-guided biopsy of the gland or adenectomy, see on a piece of exofacial parotidectomy [7]

The management is based on an antibacillary treatment that usually includes two phases, a so-called first attack phase, during which four drugs (ethambutol, isoniazid, rifampin and pyrazinamide) are used for two months. And a second called maintenance phase where the drugs used are ethambutol and isoniazid for seven months or isoniazid and rifampin for four months [8]. the total duration of treatment is six to nine months.

Some authors had advocated an exofacial parotidectomy for histological study and better therapeutic diffusion but this attitude was quickly abandoned given its high morbidity and good progression of the disease under exclusive antibacillary treatment. [3, 5, 6].

IV. CONCLUSION

Tuberculosis of the salivary glands is rare. It poses a diagnostic problem because its clinical presentation and imaging data lack specificity in this pathology it is often the anatomopathological examination that makes it possible to confirm the diagnosis. The treatment is based on a well-codified anti-bacillary treatment.

- *Conflicts of Interest:*
  No conflict of interest

FIGURES

Fig 1:- Right parotid swelling with local inflammatory signs and skin fistulization

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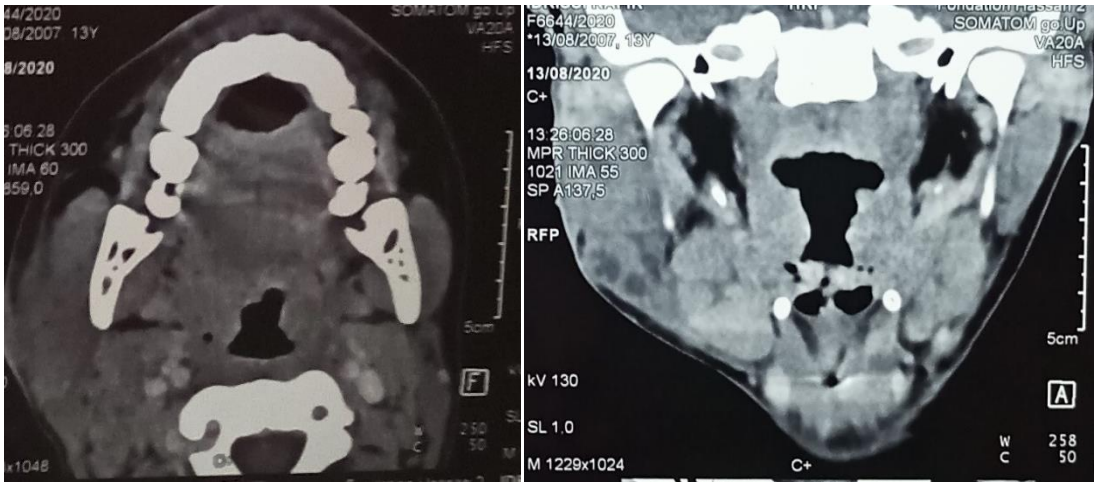

Fig 2:- Cervical CT (axial section C-)and (coronal section C+)showing heterogeneous right parotid hypertrophy with hypodense confluent areas with irregular contours associated with necrotic homolateral adenopathies under parotid and submandibular

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