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RESEARCH ARTICLE

CERVICAL CELLULITIS WITH THYROID STARTING POINT.

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Abstract

Introduction:-

Cellulite is a serious inflammation caused by a bacterial infection. It attacks connective tissues and spreads over a large area.

Cervical cellulitis is an emergency that is very rapidly life-threatening and requires immediate multidisciplinary management. They develop an extensive necrotizing affection, diffusing along the fascial partitions of the face and the neck, towards the mediastinum.

The dental or pharyngeal origin is often incriminated however the thyroid origin is rarely described.

Case Report:-

We report the case of a 56-year-old patient, followed for type 2 diabetes mellitus since 03 years, who had been insulinotreated for 01 years, who had an imbalance with HBA1C = 11% with premixed insuline , had a toxic goiter under dimazole 30 mg / d irregularly taken not followed, without any notion of familial goiter, who had for 15 days before admission extended cervical inflammation with appearance of compressive signs context of febrile sensation and deterioration of the general condition, on examination: patient conscious, stable on HD and respiratory plan, capillary Glycemia at 3.15 g / l without ketosis at the urinary strip, inflammatory placard with pustules of the cervical region surmounting a voluminous goitre heterogeneous grade 3, no dental entry door, presence of Bilateral cervical lymphadenopathy, in balance: leukocytosis 22000 predominantly neutrophilic, CRP = 174, TSH us = 1.4, T4 = 7.8, cervical ultrasound: cervical collection a In the case of multinodular goiters classified as eu-TIRADs-IV, the cervical CT scan shows a voluminous anterior subcutaneous and left-lateral cervical collection pushing back the multihetronodular goiter plunging at the level of the anterior mediastinum associated with a collection of the thyroid compartment with multiple bilateral cervical lymphadenopathy [Figure 1].

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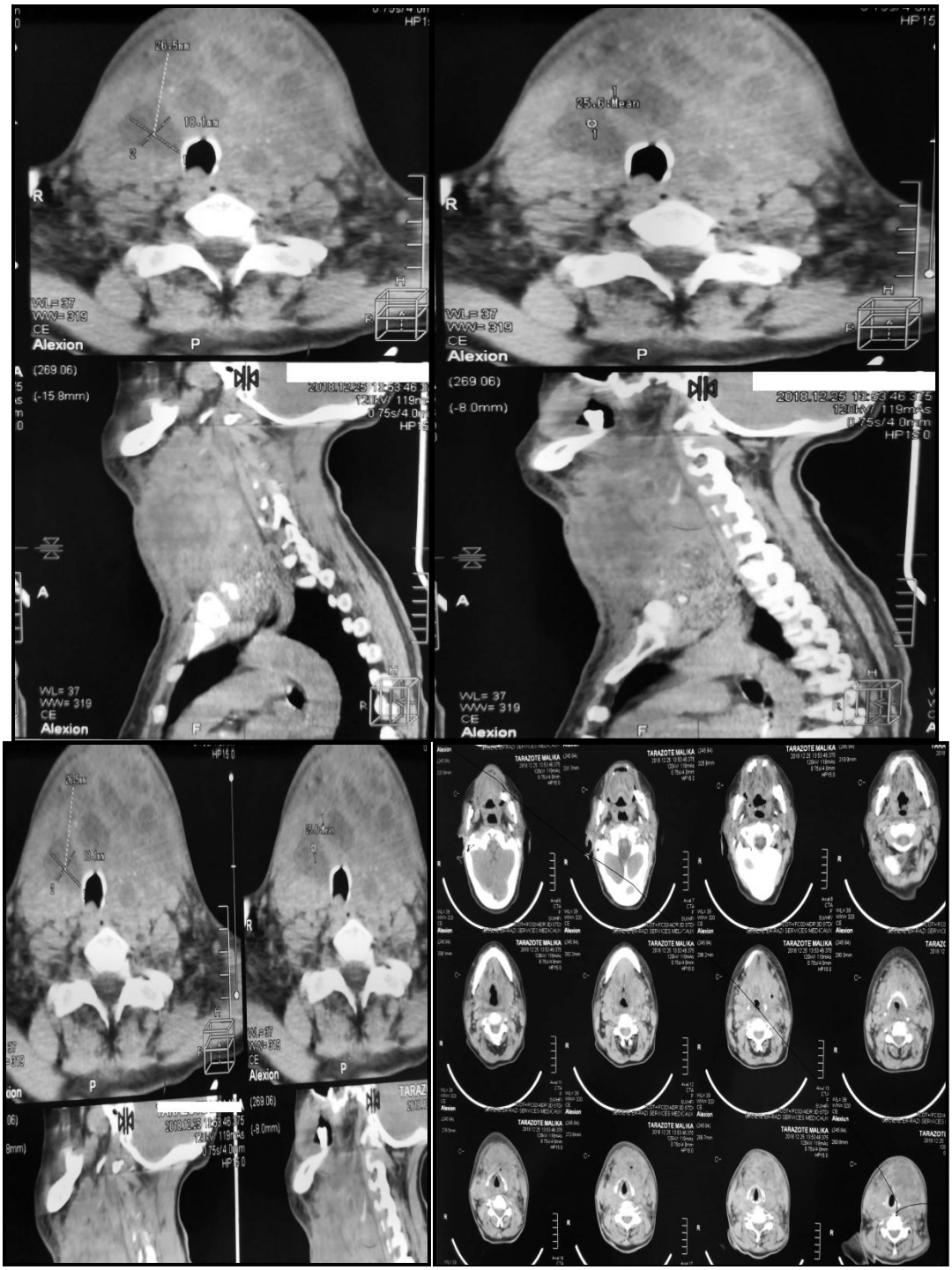

Figure 1:-4 images of Cervical CT scan showing a voluminous cervical collectionpushing back the associated with a collection of the thyroid compartment.

It is therefore a cervical cellulitis with a thyroid starting point on suspect goitre, the patient was then put under amox-ac 3g / d + flagyl 500 * 3 / d, and a drainage was carried out with washing and change of bi-daily dressing. Patient planned for total thyroidectomy with possible lymph node dissection after glycemic equilibrium.

Discussion:-

The term cervical cellulitis includes various anatomo-pathological entities ranging from an impairment of the superficial dermis to the muscular planes. In the absence of early and well-conducted surgical treatment, the

infection can spread to the mediastinum by diffusion following the course of the neck sheaths in more than 20% of cases. [1].

The three most frequent entry points listed in the literature for cervicofacial cellulitis are, in decreasing order, the teeth, especially the mandibular molars (caries, alveolites, apicodental cysts), the tonsils (angina, peritonsillar abscess). and the pharynx (parapharyngeal abscess). Also Righini et al. [2] reported, in addition to these results, two cases of infiltration of the hyothyroepiglottic lodge, and one case of collection of the thyroid lodge.

The chronic glycemic imbalance observed in diabetic patients would play a certain role in the occurrence and evolution of cellulite.

Treatment consists of broad-spectrum antibiotic therapy combined with surgical drainage.
Thyroid gland is well known to resist infections.(10) The protective mechanisms include: rich blood supply and lymphatic drainage, high glandular content of iodine which can be bactericidal, separation of the gland from other structures of neck by facial planes and generation of hydrogen peroxide inside the gland as a requirement for the synthesis of thyroid hormone (3,4,5). However in some situations such as persistence of piriform sinus fistula, thyroid gland becomes susceptible to infection and abscess formation which is more commonly seen in children and young adults between 20 to 40 years of age (6). 92 % of the affected patients are children and there is no gender preference in acquiring the disease (6). Clinical features include fever, sore throat, and tenderness, anterior midline swelling in the neck, dermal erythema, dysphagia, hoarseness and limitation of head movements (7). A preceding history of respiratory tract infection may also be present (8,9). Left lobe involvement is more prevalent, than the right and tachycardia, leukocytosis and increased ESR are common with typically normal thyroid function tests (10,11). However exceptions have also been reported: In one study 12% of patients were reported to have thyrotoxicosis and 17% were reported with hypothyroidisim (12). Destruction of the thyroid gland due to bacterial invasion can cause thyroid hormone release and this may result in symptomatic thyrotoxicosis (13). Thyroid radionucloide uptake scan may be normal or show a cold nodule in the area of abscess formation. However, radionucloide scanning cannot effectively differentiate AST and sub acute thyroiditis, for both conditions can show a low 123-I uptake at initial presentation (14).

Ultrasound adequately demonstrates intra or extra-thyroid abscesses and solid or mixed lesions of the thyroid as well as adjacent inflammatory nodes (15).

CT scan can be a useful imaging modality for identifying the location of abscess but it is not essential and is only reserved for unusual occasions (16).

A barium swallow is indicated to identify the presence of a piriform sinus fistula for it has good sensitivity in detecting the presence of these fistulas (17). FNA (fine needle aspiration) can differentiate between AST and sub acute thyroiditis and also provides a good means for identifying the bacteriologic origin of the condition and thus a more precise antibiotic selection can be made (18).

Despite excellent parenteral antibiotic regimens, most patients have historically required an open surgical procedure, either excision or incision and drainage. However, a more conservative, less invasive approach may result in decreased morbidity. Needle aspiration with sonographic guidance has proved successful in a few reported cases [19, 20–21]. Iylin et al. reported two cases in which drainage of the thyroid abscess was performed twice (on the first and fifth day of admission) using a 21-gauge needle, followed by injection of antibiotics into the abscess cavity. Both individuals remained disease-free at 6 month and 5 year follow-up periods [22]. Other authors report successful aspiration of thyroid abscesses following a single aspiration [20, 21].

An additional consideration would be placement of percutaneous drainage catheters via either CT or US guidance. This would necessitate “simple” abscesses, ones without loculations, as the separate compartments could not be interrogated with a single drain. CT catheter placement has been performed in head and neck infection [12], although no case report of thyroid abscess could be found after literature search. US guided drainage placement has been recommended when the abscess is larger than 3 cm and/or when the abscess occurs in a glandular structure (thyroid, parathyroid) [11].

Conclusion:-

Cervico-facial cellulitis is a serious condition. Early multidisciplinary management is essential to limit complications.

The dental, tonsillar and pharyngeal origin are classically described however the thyroid origin must also be dreaded; interest in adequate and early management of thyroid goitersit may rarely be secondary to primary thyroid abscesses that may cause suppurative acute thyroiditis.

With early diagnosis and proper treatment, it can be prevented from complications,interest in education and awareness of patients especially patients from origins of goitrous endemics.

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