

## Deep Cervical Cellulitis of Unusual Origin: About 2 Cases

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### Abstract

Deep Cervical cellulitis is one of the most severe ENT emergencies, requiring immediate management by a multidisciplinary team. Often due to a benign pharyngeal or dental infection, this life-threatening condition leads to extensive necrosis spreading along the fascia of the neck, possibly to the mediastinum. This article reports two cases of deep neck infection, one of which had severe thoracic complications, with septic shock and multiorgan failure.

**Keywords:** Cervical cellulitis, unusual origin.

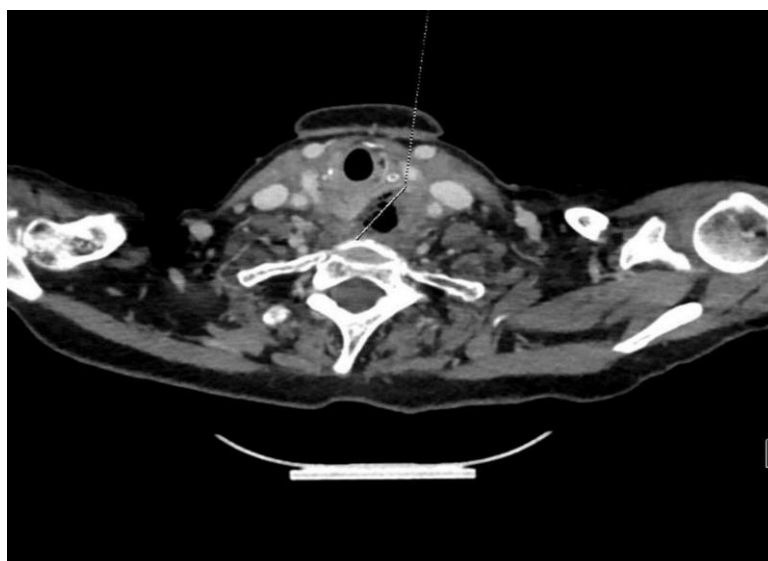
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### INTRODUCTION

Head and neck cellulitis is one of the most worrying ENT emergencies in the discipline today. Because they involve the vital prognosis requiring from the first hours the initiation of a multidisciplinary treatment and often CAUSE significant aesthetic and /

or functional sequel. It develops from an apparently banal infection, most often pharyngeal or dental rapidly lead to extensive necrosis extending to the deep cervical or even mediastinal spaces.

#### CASE 1:

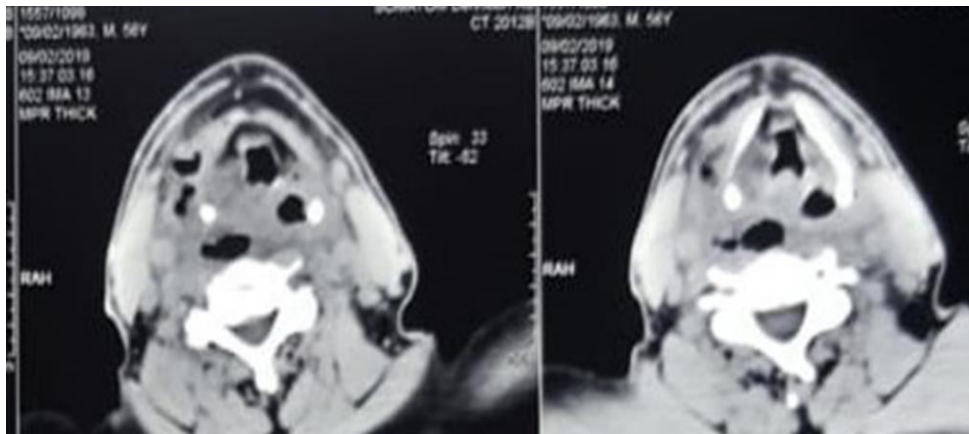


**Fig-1:** Pre-treatment cervical computed tomography showing the collection with infiltration of soft parts

80-year-old patient with no particular antecedents, who presented odynophagia dating back a month and having appeared 2 days after consuming a fish-based meal. The patient reports having taken anti-inflammatory drugs for 3 weeks without any improvement; one week before admission, the patient presented a left lateral cervical mass which progressively increased in size with inflammatory signs opposite, admitted to intensive care in a table of septic shock. The etiological assessment based on cervicothoracic scan returned in favor of cervical cellulitis with infiltration of the soft parts and mediastinitis, the biology objectified a CRP 300, GB at 28,000, The patient was admitted to the intensive care unit then she benefited from drainage of the latero cervical collection with placement of a multi-tubulated blade for evacuation of secretions from the mass with intravenous antibiotic therapy based on metronidazole and C3G. The course was marked by apyrexia and regression of inflammatory biological and clinical signs.

#### CASE 2:

54-year-old patient who presented 8 days before admission with fever associated with progressive worsening dyspnea with the notion of taking amoxicillin at a rate of 3 g / d for the 4 days preceding his hospitalization without any improvement. On admission the patient was feverish; dysphagic and mildly dyspneic. The cervico-facial examination found a hard fixed mass of the entire anterior cervical region (oropharyngeal examination without particularities); the cervicothoracic scan performed urgently showed para and retro pharyngeal cellulitis with collection of the thyroid compartment. The patient was drained (placement of a delbet blade) and tracheotomized urgently (difficult intubation) then transferred to intensive care; put on antibiotics (gentamycin; ceftriaxone; metronidazole and imipenem) The evolution was marked by the regression of the collection with progressive improvement of fever and inflammatory syndrome.



**Fig-2: Axial sections of a cervical C + CT showing the sites of the collection**

## DISCUSSION

Head and neck cellulitis is of particular concern because its anatomic location can produce grave consequences [2], it's to affect younger age groups, with approximately 60% of these patients being under 50 years old. Predisposing factors such as otitis externa, trauma, and dental infections occur in the younger population. In a previous study on cellulitis, 13 10% involved the head and neck area, and most of these patients were younger than 15 years of age [2, 3]. In most published studies of cellulitis, there is marked male predominance [1-3]. The reason for this sex discrepancy is not clear; increase in intravenous drug use among males ac- counted for some male predominance in prior studies, but was not a factor in our patients. Moreover, erysipelas is more common in females, which may offset the higher trauma incidence in male patients [3, 4].

Taking anti-inflammatory drugs, delay and / or inadequate initial management promotes the extension and transformation of a circumscribed cellulite into a severe cellulitis. Indeed in addition to the classic favouring factors (immunosuppression in all its forms: diabetes, insufficiency renal), steroidal anti-inflammatory drugs and especially not steroids are an essential factor in this transformation [2, 3].

Many studies have emphasized the need for early management. Indeed a diagnostic delay is a primary factor in the spread of infection. In the literature, this factor was found as predictive factor mortality. The initial risk is the impact on the upper airways [1]. The diagnosis is generally clinical and should make it possible to distinguish two forms of serious cellulitis: the pseudo-phlegmonous or phlegmon form, of the oral floor or of the parotid-masseter cell, which results in a painful inflammatory process, trismus and compressive signs. Upper aero-digestive tract; and the gangrenous form with subcutaneous snowy

crepitation, necrosis and rapid cervico-mediastinal extension. On the biological level, there is a moderate hyperleukocytosis with a predominance of polynuclear neutrophils. The infection is mixed polymicrobial, and if the predominance of anaerobic germs unanimously agrees with the authors, the microbial virulence is characteristic of severe cellulitis with at least the presence of a multi-resistant germ on the antibiogram [2]. The cervico-thoracic computed tomography is the key radiological examination and allows an accurate lesion assessment [4]. It is recommended to systematically combine targeted antibiotic therapy against *Pseudomonas Aeruginosa* and gram positive bacilli in deep cervical Cellulitis complicated by septic shock; the treatment is medico-surgical associated with resuscitation adapted. Par clinical investigations should not any case delay the assumption of responsibility. Antibiotic therapy should be effective and targeted, it is first probabilistic and then adapted to the data of the antibiogram. The duration is variable depending on the degree of severity and evolution [6]. Drainage and / or surgical debridement are a component essential and must allow the flattening of all areas cellulite by a broad approach; the tracheostomy is justified in retropharyngeal collections. Hyperbaric oxygen therapy is a complement surgical treatment. It is of a capital contribution because of its bacteriostatic role and its power of tissue regeneration; however, its contraindications and availability limit its use [1]. The prognosis of these cellulites is mainly linked on the ground; the earliness and effectiveness of the initial treatment, including the isolation of the germs in cause, constitutes a stage decisive. The percentage of deaths in the literature varies between 7 and 50 [1-3].

## CONCLUSION

Head and neck cellulitis are relatively common, serious conditions that can compromise the vital prognosis; it is a medico-surgical emergency; they pose a real public health problem, due to both: treatment expensive and difficult requiring multidisciplinary cooperation involving surgeons, resuscitator-anesthetist, radiologist and biologists. No steroidal anti-inflammatory drugs are often cited as a factor promoting in severe forms of acute diffuse cervico-facial cellulitis; Diagnosis is clinically based, greatly improved by imaging and confirmed by the bacteriological study and certain biological examinations; The assessment of their severity is

mainly clinical, and their management should be fast; The treatment is medico-surgical, it is based on probabilistic antibiotic therapy then suitable for bacteriological samples, sometimes extensive surgical drainage without forgetting treatment of the cause.

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