An unusual case of submandibular gland related sepsis

We present a case of submandibular gland related sepsis with an unusual presentation. A 77-year-old gentleman was admitted with an 8 cm swelling in the anterior triangle of the right neck (Fig. 1). The swelling had been present for around 5 days and had gradually increased in size, becoming painful and tender. Swallowing had become increasingly difficult. Intraoral examination was unremarkable. Initial blood investigations were normal with the exception of a slight raise in white cell count (12.9 × 10⁹/l) and raised CRP (199 mg/l). Closer questioning revealed a history of recurrent swelling in the right neck with multiple previous episodes over several years.

A CT scan (Fig. 2) revealed a large calculus in the right submandibular gland with associated inflammatory change seen around the submandibular gland and extending medially close to the hyoid bone. This included a collection of pus pointing to the skin, measuring 6.7 × 3.6 × 9.6 cms in size. The collection was lying anterior to and overlapping the right sternocleidomastoid muscle.

The patient was managed by biopsy, incision and drainage of the lesion and excision of areas of necrotic skin. Subsequent histological examination showed substantially infarcted, largely necrotic fibrovascular and collagenous connective tissue, heavily infiltrated by cytolsing neutrophil polymorphs. Various microorganisms were noted, including actinomyces-like colonies. Microbiological investigations showed growth of Streptococcus Millieri, and mixed anaerobes.

A Whitehead’s varnish pack was applied and regular dressing changes planned. The patient received a prolonged course of penicillin in view of the microbiological findings. Subsequent healing was uneventful. Removal of the right submandibular gland was performed as a secondary procedure four months after the initial incision and drainage and again confirmed the presence of actinomyces colonies.

This unusual presentation of submandibular gland related abscess formation should be considered in the differential diagnosis of inflammatory neck swellings.

Will any wire do?

The paper clip was first patented in 1867 by Fay.1 It was originally designed to fasten labels to garments or textiles, but quickly gained popularity for use on stationery.

In medicine, it has been used for a number of different purposes2–4 including, two point discrimination, retraction of the eyelid and as a haemostatic applicator in microscopic vessel anastamosis.

Many hospitals do not have oral and maxillofacial surgeons on site to manage displaced fractures of the mandible. We report a new use for a paper clip, which requires no expertise and could potentially be life-saving.

A 22-year-old driver of a van was brought to the emergency department of a rural Irish hospital after being involved in a road crash. He had sustained bilateral mandibular fractures involving his anterior mandible between the lower left lateral incisor and canine teeth and the right angle. The anterior fracture was grossly displaced and the bone was bleeding into the sublingual tissues, which caused his tongue to be raised and pushed backwards towards his oropharynx. There was also bleeding into the oral cavity, which was making him
choke. As he was in full spinal immobilisation he was unable to maintain his own airway without continuous suction and jaw thrust. He was in considerable pain from the mobility of his mandible.

Because of the bleeding, pain, and difficulty managing his airway it was necessary to reduce and stabilise the anterior fracture of the mandible. However, there was no oral and maxillofacial equipment for many miles. A straightened paper clip was used as a temporary bridle to stabilise and reduce the fracture, which reduced the pain and blood loss, and enabled the airway to be maintained safely.

Local anaesthetic with epinephrine was infiltrated into the submucosal space of the left anterior mandible. One end of a straightened paper clip of 0.5 mm diameter was inserted with needle holders between the lower left premolar teeth and the same end was passed back out through the gap between two central incisor teeth. While the fracture was reduced manually with the teeth in occlusion, the paper clip was wound tight in a clockwise fashion. Fig. 1 shows a radiograph of the paper clip in place.

The paper clip allowed the patient to be transferred safely to the regional maxillofacial unit.

We think that this simple technique (with appropriately designed equipment) should be part of standard training in emergency medicine (and Advanced Trauma Life Support) and would encourage current trainees in emergency medicine to spend some time on attachment in oral & maxillofacial surgery. Emergency departments with or without on-site oral & maxillofacial services should maintain a small collection of appropriate equipment for such emergencies and be competent in their use.

Reference


Diagnosing secondary syphilis in a patient with HIV

A 40-year-old man was referred to the Special Care Dentistry Centre of the University of São Paulo with a six-month history of multiple oral ulcers. He had been HIV positive and HCV positive since 1989, and on highly-active antiretroviral treatment for 10 years. CD4 and viral load counts were 378 cells/mm³ and 8.240 copies/μL, respectively. The patient reported that he had had an episode of secondary syphilis in 1999. Blood count and blood chemistry showed values within the reference ranges, and the Venereal Disease Research Laboratory (VDRL) test was negative. Previous unsuccessful treatment included topical corticosteroids, non-steroidal anti-inflammatory drugs, antibiotics, and antymycotics. Clinical examination showed red macular lesions with desquamation on both hands (Fig. 1), and painless ulcerated lesions, partially covered with white patches on the palate and tongue (Fig. 2).

The oral lesions were biopsied. Histopathological examination of the specimens showed ulcerated epithelium, an increased number of vascular channels in the underlying lamina propria, and intense chronic inflammatory reaction around the blood vessels. The histopathological and clinical features suggested a second episode of secondary syphilis.

Fig. 1. Red macular lesions with desquamation on the hand.