The Use of Gutta-Percha Point to Locate the origin of Facial Sinus

W C Ngeow, BDS, Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, University of Malaya, 50603 Kuala Lumpur

Summary

Infection from the wisdom teeth usually causes severe swelling at the region of the angle and body of the mandible. Occasionally, it tracts outward to form a cervicofacial sinus. This paper demonstrates the use of gutta-percha point to locate the origin of a cervicofacial sinus due to an asymptomatic impacted wisdom tooth. The advantage of using gutta-percha point is discussed.

Key Words: Cervicofacial sinus, Impaction, Wisdom tooth, Gutta-percha

Introduction

A cervicofacial sinus is a common blind-ended tract discharging on the skin of the face and neck[1]. Odontogenic pathology is one of the well recognised cause of cervicofacial sinus[2] beside bacterial infections like tuberculosis. This lesion may be misdiagnosed as soft tissue lesion especially when the patient does not have any symptoms of dental infection like pain and swelling.

Infection around the impacted wisdom teeth can sometimes be the cause of cervicofacial sinus. This happens when instead of tracking intraorally into the buccal sulcus, submandibular space or submasseteric space, the pus drain extraorally. Cervicofacial sinus caused by the pathology around the impacted wisdom molar tooth is not common due to its anatomical relationship to the masseter muscle, external and internal oblique ridge and submandibular glands.

The origin of the cervicofacial sinus may be difficult to find, especially when the patient gives no significant dental history. A simple method used in dentistry to locate the origin of intraoral odontogenic sinus can be adapted to locate the origin of a cervicofacial sinus.

Case Report

A fit 19 year-old-Chinese lady was referred to the Department of Oral and Maxillofacial Surgery for the management of a persistent discharging sinus at her left cheek.

The sinus formed spontaneously and started discharging from her left cheek more than a year ago. She consulted a general medical practitioner who attempted to excise the lesion under local anaesthesia. It was thought to be a soft tissue lesion. However, the lesion kept on discharging fluid again 10 months later. She was referred to her dentist to rule out the possibility of odontogenic infection.

The dentist who attended to the patient could not rule out the possibility of odontogenic infection thus referred her to the author.

On inspection, a sinus was seen at her left cheek. A gutta-percha point was inserted to trace its origin (Figure 1). A radiographic view of the gutta-percha was then taken. The end of the gutta-percha pointed to her lower left second and third molar teeth region (Figure 2). Intraoral examination revealed a fully erupted lower left second molar and a vertically impacted lower left wisdom tooth. Both teeth were asymptomatic and no abnormality was detected.

As the lower left wisdom tooth was impacted and was

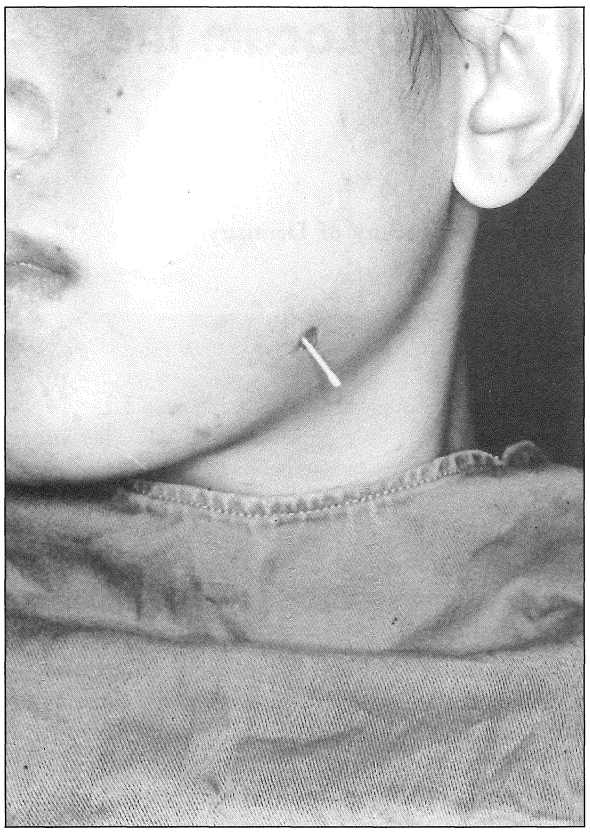

Fig. 1: Clinical photograph showing a gutta-percha point inserted into cervicofacial sinus.

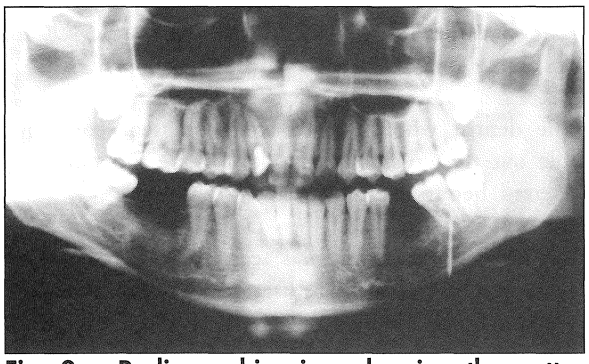

Fig. 2: Radiographic view showing the gutta-percha point ending at the lower left second and third molar teeth.

functionless, a decision was made to remove it as there was a high possibility that a chronic odontogenic infection was happening around the tooth and this might be the source of the cervicofacial sinus. The tooth was removed surgically under local anaesthesia.

Healing was uneventful and the cervicofacial sinus had already stopped discharging when reviewed one month later.

Discussion

Gutta-percha point has long been used in dentistry to locate the origin of intraoral sinus. It is inserted into the opening of the dental sinus and an intraoral radiograph is then taken. The radiograph will reveal the origin of the sinus, just like what was done in this case.

Gutta-percha points are usually used to seal root canals in endodontics[3]. They are transisiomer of polyisoprene[3]. Heavy metal salts are used to make the points radiopaque. This will enable dental surgeons to determine the location of the points in the root canal and the seal achieved. Gutta-percha points usually do not cause tissue reaction. They can be easily sterilised by soaking in alcohol, 1-5% sodium hypochlorite or 5% Chloramine[3]. They are cheap and easily available.

The use of gutta-percha point to locate the origin of cervicofacial sinus is simple and well tolerated. No anaesthesia is required. It can be done fast without the worry of allergic reaction compared to when a soluble radiopaque dye is used.. Moreover, there is no worry that any residue is left behind undrained at the end of the procedure.

References

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