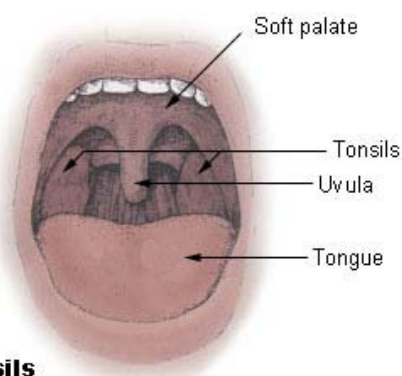


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內文：

***Introduction:**

◎Tonsilloliths, calcifications within a tonsillar crypt(腺窩), involve primarily the palatine tonsil. Tonsilloliths are not uncommon, but they tend to be microscopic.



◎Weller reported:

I. **Microscopic view**: during routine histological examination of excised tonsils, tonsilloliths were found in **8%** of the specimens.

II. **Macroscopic view**: macroscopic calculi, whose size varied from barely visible to pea size, in **2%** of the excised tonsils.

◎Aspestrand and Kolbenstvedt reviewed **computerized tomographic (CT)scan** and reported an incidence of **16%** with the calcifications varying from 1 to 7 mm.

◎Now authors centered their attention on the relative rare, but **very large tonsilloliths**, whose size can **approach 3 mm**.

◎structure of palatine tonsil: markedly by the presence of many crypts.

› Result:

→**Organic debris**, consisting of **dead bacteria** and **debris from inflammation, epithelial tissue, and food**, can be trapped at the base of the crypt and **act as nidus(發源地) for salt precipitation.**

→**salts, consisting mainly of carbonate and phosphate of calcium and magnesium**, are derived from the surrounding **saliva** and **inflammatory exudate**. With salt deposition, tonsillothis forms and grow up.

◎tonsilloliths:

I.**gender inclination: occur equally in M/F during the fifth decade** of their life.

II. tonsilloliths may occur singly or in multiples and may be unilateral or

bilateral in their presentation. *The larger tonsilloliths seem to occur alone whereas the smaller calculi are often seen in multiples.*

III. symptoms of tonsilloliths: particularly very large tonsilloliths can cause *recurrent bouts(發作) of sore throat, dysphagia(吞嚥困難), bad taste and odor, otalgia(耳痛), and a foreign body sensation noted on swallowing(吞嚥異物感).*

@ *Howevre, they are frequently totally asymptomatic.*

◎ Because tonsilloliths can be asymptomatic, it is often during routine imaging procedures that their presence is uncovered.

I. *panoramic*: an efficient tool have been used for dentist to show macroscopic tonsilloliths.

II. *Axial computerized tomography(CT)scan*, taken in the head and neck also serve as another source for unexpectedly showing calcification in the palatine tonsil.

◎ This article presents a case that is *highly unusual* in the *multiple bilateral and asymptomatic macroscopic tonsilloliths.* No similar case could be found in a review of the literature.

* Report of a case:

A 51 y/o health male visited his dentist for routine dental care. During a *panoramic examination, multiple bilateral calcified nodules, measuring 2 to 7 mm in diameter were observed on the right and left posterior mandibular rami.* (Fig 1) The patient was referred to the salivary Gland for further study regarding a possible diagnosis of *parotid sialolithiasis(腮腺結石).*

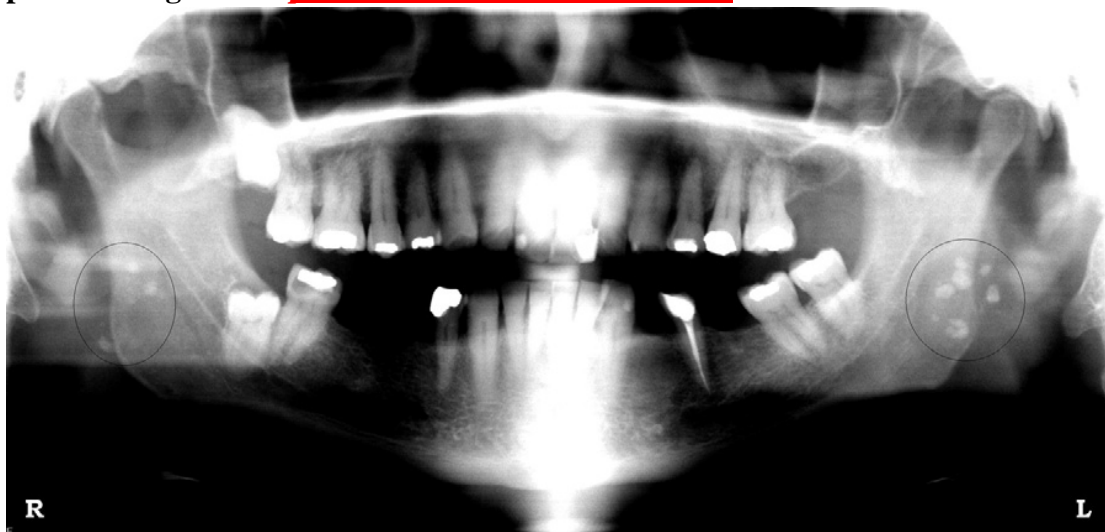


Fig 1

Past medical history: The patient was in excellent health, he was no history of any systemic disease, no swellings or discomfort had ever been present in the head or neck areas.

PE:

1. Clinically, *no extraoral swellings were evident*.
2. Palpation of the face, with particular attention to *parotid areas*, showed the tissue to be *normal in tone and painless*. There was *no cervical lymphadenopathy and trismus*.
3. *Intraorally*, some dental caries was present, but *no acute infectious processes were evident*. *The posterior mandibular soft tissues were not inflamed nor were they swollen or painful*.
4. Close scrutiny of the posterior regions of the *right and left mandibles showed*

- no abnormalities laterally or medially.*
5. The orifices of the Stensen's duct were patent and free, and clear salivary flows were produced when the parotid gland were massaged aggressively.
 6. The panoramic film was studied carefully,
 - (i) three calcified nodules measuring 2 to 3 mm were present on the right side. 2 were on the ramus whereas 1 seemed to be in soft tissue close to the gonial angle.
 - (ii) 6 calcifications measuring 2 to 7mm were observed. 2 were in soft tissue whereas 4 were on the posterior ramus above the gonial angle.
- ※To determine the exact anatomic location of these calcifications, a CT scan with no contrast was ordered. The axial CT scan showed clearly that these calcifications were located in the right and left palatine tonsil. (Fig 2)



Fig 2

→ A diagnosis of multiple asymptomatic bilateral tonsilloliths was made.

* Discussion:

I. Initially, a diagnosis of multiple bilateral parotid stones was considered.

However, the random pattern of their distribution and their multiplicity(多様性、重複性) argued against sialolithiasis. Furthermore, there was no indication of any history or presence of a parotiditis.

II. Obstructive parotid swellings or pain were not part of the story, and the salivary return was observed to be adequate and clear rather than diminished and suppurative.

III. Another calcified entity that was considered was phlebolithiasis. Phleboliths are calcified thrombi and are often found in association with hemangiomas. Skeletal muscle hemangiomas do occur in the head and neck region and usually involve the masseter muscle. Consequently phleboliths can be seen in the anatomic area occupied by the masseter muscle and mandibular ramus.

However no swellings making the existence of a hemangioma were observed.

IV. Lymph node calcifications represent another process that centered into the differential diagnosis. Scrofula(淋巴結腺腫, nontuberculous mycobacterial infection, oral & maxillofacial pathology, p174), tuberculous lymphadenitis, is often hallmarked by multiple calcifications that involve the cervical chain of lymph nodes.

V. Tuberculosis and other granulomatous diseases that may involve the cervical nodes were eliminated by the absence of any medical history or symptomatology indicating their existence. In addition, the calcifications seen in this case do not follow the anatomic configuration of a cervical node chain.

VI. Differential diagnosis also must include the presence of anatomic structures such as an elongated styloid process, calcification of stylohyoid apparatus or even a prominent hamular process. Arterial calcifications and foreign bodies also must be brought into equation. A granulomatous disease of the tonsil, which has progressed to calcification, is another possibility. This group of opacities can be confused with a single tonsillolith, but certainly not with the numerous opacities seen in this reported case.

VII. The panoramic radiograph can not be expected to show the exact location of observed opacities. A 3D investigation is necessary. The CT scan with its axial and coronal views was indicated. No contrast was required because the resulting vascular opacities can conflict with the pathologic opacities that are of interest. The axial CT scan definitively solved the problem of anatomically locating the multiple bilateral calcifications. They were clearly shown to be bilaterally placed in the palatine tonsils.

* Treatment

Single large tonsilloliths are removed surgically even if they are asymptomatic because recurrent episodes of tonsillitis can be anticipated. Removal can be accomplished with manual compression, curettage or a simple incision to release the calcified body. When tonsillitis is present, a tonsillectomy with the contained tonsillitis, is carried out. In this reported case the patient had no subjective symptoms. Individual removal of the numerous tonsilloliths is not a feasible approach. Bilateral tonsillectomy would be the only viable procedure to eliminate the tonsilloliths. Because the patient was asymptomatic, observation certainly was a legitimate option. Therefore no treatment was offered, but the patient was alerted to the possible development of a tonsillitis with its need for surgical intervention.

題號	題目
1	下列何者最可能出現類似放射線菌(actinomycosis)之硫磺顆粒(sulfur granules)? (A) 膿疱菌(impetigo) (B) 葡萄狀黴菌病(botryomycosis) (C) 芽生菌病(blatomycosis) (D) 腺腫(scrofula)
答案 (B)	出處：Oral and Maxillofacial Pathology, Neville 2 nd ed,P180
題號	題目
2	下列何者是數位放射線影像攝影之缺點? (A) 有digital subtraction之功能 (B) 可以增強影像之清晰 (C) 置入口中的sensor 太大 (D) 需要加強輻射防護
答案 (C)	出處：oral radiology principle and interpretation 5 th edition P19