

原文題目(出處)：	Total Impaction of Deciduous Maxillary Molars : Two Case Reports (J Contemp Dent Pract 2007 September; (8) 6:064-071)
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內文：

INTRODUCTION

Submersion的定義，為原已萌發的牙齒後來被埋沒在口腔軟硬組織裡面，在文獻上亦有使用secondary retention, half retention, reinclusion, and ankylosis等字眼描述此種情況。當該牙齒marginal ridge低於鄰牙的marginal ridge 0.5 mm 以上，才認為有submerge的情形發生。在牙齒萌發過程中受到不當外力，造成萌發機制停擺，或是本身異位性萌發，都可能造成secondary retention的發生，且易好發的deciduous molars中以mandibular second molar最常發生，maxillary first molar最少，其盛行率約從1.3%到35%不等。

其實真正的reimpaction tooth很罕見，當submerged deciduous tooth的alveolar process高度不再生長，而逐漸喪失occlusal contact；相對的，鄰近permanent teeth及alveolar processes持續萌發生長，導致submerged tooth被埋沒在組織內。而筆者便分享2個臨床少見的totally impacted maxillary deciduous molars的cases。

CASE 1

一個18歲的男性主訴在maxillary right premolar region有自發且反覆性疼痛，口內檢查發現患者缺少maxillary right second premolar。在panoramic & periapical radiography發現impacted second premolar很靠近the inferior wall of the maxillary sinus，且impacted deciduous molar深埋在maxillary sinus的骨壁內，而impacted tooth都有external resorption的狀況。

患者接受手術將impacted second premolar & deciduous molar移除。術中觀察到deciduous tooth有ankylosis的情形，及maxillary sinus有個minor communication，而術後持續追蹤無併發症產生。



Figure 1. Panoramic radiograph showing a totally impacted deciduous maxillary right molar and impacted maxillary second premolar.

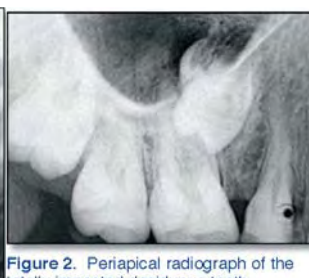


Figure 2. Periapical radiograph of the totally impacted deciduous tooth.

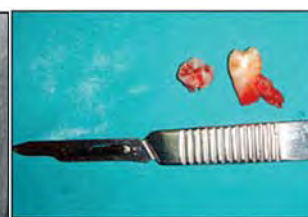


Figure 3. The totally impacted deciduous molar and impacted premolar after extraction.

CASE 2

一個14歲的女孩主訴crowded maxillary teeth，其口內檢查發現患者缺少maxillary right second premolar and canines。Panoramic radiography顯示有impacted maxillary right second premolar and deciduous molar埋沒在接近the inferior wall of the maxillary sinus。而impacted deciduous molar有caries & external resorption的情形。

隨後以手術方式移除impacted deciduous molar，且無併發症產生。在手術過程中以orthodontic eyelet with gold chain bonding到premolar上，並配合simple removable appliance開始用矯正方式將牙齒拉出。3個月後，改用conventional fixed orthodontic appliance對齒列進行調整。

DISCUSSION



Figure 4. Panoramic radiograph showing a totally impacted deciduous maxillary right molar.



Figure 5. Periapical radiograph of the totally impacted deciduous tooth.

Secondary retention臨床上是很罕見的，主要發生的原因在於萌發過程受到干擾。其牙冠上caries or abrasion facets的存在，即顯示過去已萌發的證據。Submergence的嚴重程度，可評估involved tooth的數量，以及impacted tooth & tooth germ的位置。

造成submersion of deciduous tooth的因素：

1. anklyosis
2. congenitally missing permanent teeth
3. defects in the periodontal membrane
4. trauma
5. injury of the periodontal ligament
6. precocious eruption of the first permanent molar
7. defective eruptive force
8. combination of above factors

綜合以上幾點，anklyosis似乎是最主要或共存的因素，因而在某些文獻中會使用anklyosis來描述submersion的情形，而這篇report中的兩個cases也都有anklyosis的情況。

Submerged teeth很容易引起malocclusion，如inclination of proximal teeth or extrusion of antagonistic teeth。Rygh et al., Ten Cate, Thornton et al., and Biederman等學者建議儘早將submerged teeth拔除；相對的，McDonald et al.則認為有些submerged teeth會自行脫落，所以患者假若可配合，密切持續觀察會是最好的處置，而如有殘餘組織，再以手術移除。內文中的first case，因為impacted second premolar and deciduous tooth屬於severe infraocclusion，所以皆以拔除；在second case中，submerged deciduous second molar會干擾maxillary second premolar的萌發，而造成malposition，因此亦建議手術移除submerged deciduous tooth。

SUMMARY

Total impaction of deciduous teeth是非常罕見的，其中以mandibular second molar最常發生，maxillary first molar最少。

題號	題目
1	In permanent dentition, which is the correct sequence of incidence of impaction? 1. maxillary canine 2. mandibular canine 3. third molar 4. maxillary premolar 5. mandibular premolar

	(A) 3 > 1 > 2 > 4 > 5 (B) 3 > 4 > 1 > 2 > 5 (C) 3 > 2 > 1 > 5 > 4 (D) 3 > 1 > 5 > 2 > 4
答案(D)	出處：Oral & Maxillofacial pathology 2nd Edition, P.66
題號	題目
2	Although any tooth may be affected by ankylosis, which tooth is most commonly involved?
	(A) Mandibular deciduous incisor (B) Mandibular deciduous molar (C) Maxillary deciduous incisor (D) Maxillary deciduous molar
答案(B)	出處：Oral & Maxillofacial pathology 2nd Edition, P.68