原文題目(出處)：	Decompression of odontogenic cystic lesions: Past, present, and future. J Oral Maxillofac Surg 2016;74:104.e1-104.e9.
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報告日期：	2016/3/7

內文：

I. Introduction:

1. The history of cystic conditions of the jaw bones and decompression (also known as marsupialization or exteriorization) as a treatment modality is intimately related to the birth of oral and maxillofacial pathology
2. Oral and maxillofacial pathology as currently understood began during the 1930s and 1940s, an epoch when the world was shaken by the Second World War and whose end led to a flourishing in virtually all fields of knowledge
3. The purpose of this article is to analyze the history, present, and future of cystic conditions of the jaws and decompression

II. Early Descriptions of Odontogenic Entities:

1. In 1671 Iean Scultet described cysts of the jaws as ‘‘liquid tumors”. The idea that a cyst was capable of exerting enough pressure to cause bony expansion was formed at that time
2. In 1746 Pierre Fauchard provided the first accurate description of an odontoma
3. In 1774 John Hunter described what seems to be the case of a patient with an odontogenic cyst
4. In 1778 Anselm Louis Bernard Brechillet Jourdain described 3 cases that appear to be dentigerous cysts
5. Thanks to the release of the American Journal of Dental Science (AJDS) in 1839, in which such pathologies were available for the dental community to be studied, debated, and characterized
6. It was the famous British pathologist James Paget who in 1853 coined the term dentigerous cyst to refer to any cystic condition of dental origin
7. Other pathologists used many other terms to refer to unilocular cysts. For example, what Emile Magitot called the ‘‘radicular cyst’’ was the same entity Amedee Forget knew as the ‘‘periosteal cyst’’ and Louis-Charles Malassez knew as the ‘‘radiculo-dental cyst’’
8. In 1885 Poulet and Bousquet proposed the term unilocular to designate single-cavity lesions

III. Classifying Odontogenic Tumors:

1. In 1869 Paul Pierre Broca published Traite des tumeurs, where he suggested the first classification of OTs:

I. Ordinary odontomas
1. Embryoplastic period
Embryoplastic odontomas
Fibroplastic
Fibrous
2. Odonto-plastic period
Odonto-plastic odontomas
Cemental
Bulbar
3. Crown formation period

Coronal odontomas
Cemental
Pulpal or dentinal
4. Root formation period
Radicular odontomas
Cemental
Dentinal
II. Composed odontomas
III. Heterotopic odontomas
IV. Classification of Odontogenic Cysts:

1. In his 1937 oral diagnosis and treatment planning textbook, Thoma subdivided the classification of the follicular cyst in the following manner:
   1. Simple (without tooth formation)
   2. Dentigerous
   3. With odontoma
2. Also in 1937, Hamilton Robinson subdivided dentigerous cysts into 4 categories:
   1. Simple
   2. Compound
   3. Eruption
   4. Heterotropic
3. Eight years later (in 1945), Robinson proposed another classification for the cysts of the jawbones
   1. Developmental cysts from odontogenetic tissue
      1.1. Periodontal
      1.2. Dentigerous
      1.3. Primordial
   2. Developmental cysts of non-dental origin
      2.1. Median
      2.2. Globulomaxillary
      2.3. Incisive canal cysts
   3. Ameloblastomas
4. In this classification of 1945, the term primordial was mentioned for the first time and it seems to be the same ‘‘simple cyst’’ described by Geschickter in 1935
5. The new term was favored owing to the researcher’s beliefs that the cyst arose from remnants of the dental lamina or enamel organ (primordial origin) before enamel had formed, and it replaced a tooth
6. During the first half of the 20th century, many classification methods for odontogenic cysts and tumors (odontomas) were proposed, and 4 terms were generally used to describe odontogenic cysts: dentigerous, simple or primordial, and follicular
7. The term follicular was applied to dentigerous and primordial cysts, until Mervyn Shear established in 1976 that dentigerous and follicular were synonymous

V. Rise and Fall of Decompression: the Past:

1. Four hundred years of research have helped to not only undress these pathologies to the point of knowing them as they are, but also to understand how they are best treated
2. Factors such as type, size, and nature of the lesion, localization, etiology, and age of the patient play a role in determining the therapy

3. During the past 20 years, researchers have been able to give reliable statistics on the chances an entity has to recur after a given treatment plan
4. This article addresses the historical facts related to this surgical option, which is currently used to treat unicystic ameloblastomas, KCOTs, and other odontogenic cysts and tumors
5. A cyst is a pathologic cavity in the soft tissue or bone with an outer wall composed of connective tissue and an inner wall composed of epithelium
6. The cavity has a watery, semisolid, or colloidal content. Cysts gradually enlarge owing to a combination of osmotic pressure and release of growth factors and prostaglandins
7. This persistent pressure exerted on the bony walls coupled with biomolecules cause bone resorption while the entity expands
8. Therefore, mitigating the pressure by making a small window into the cyst and keeping it open guarantees permanent drainage, thus preventing its enlargement. Eventually, bone growth will reduce the space
9. Polish professor Carl Franz Maria Partsch introduced the concept of cystostomy in 1892 and cystectomy in 1910
10. In an article published in German at the end of the 19th century, Partsch reported the conversion of a cyst into a pouch by suturing its lining to the mucosa of the oral cavity
11. Today, cystostomy is known as Partsch I or marsupialization, a term from the modern Latin marsupialis, from the Latin for the Greek marsupion, meaning ‘‘pouch.’’ Cystectomy (Partsch II) is enucleation and primary closure

FIGURE 1. Carl Franz Maria Partsch (1855 to 1932).

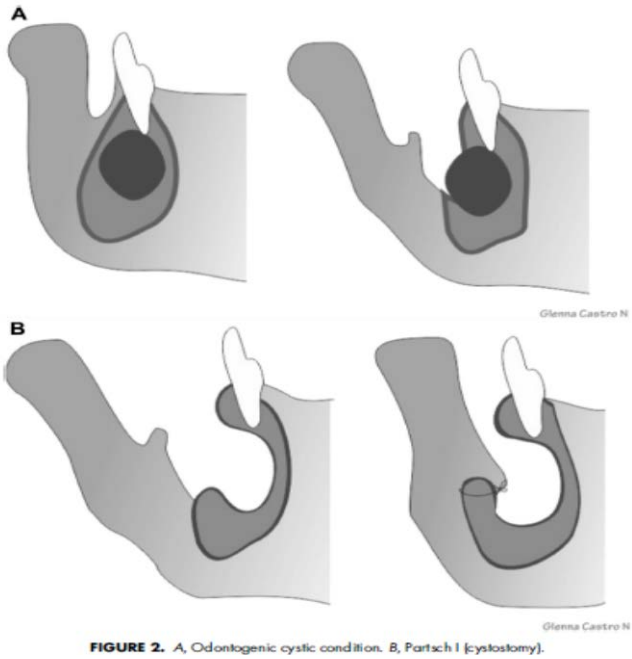


FIGURE 2. A, Odontogenic cystic condition. B, Partsch I (cystostomy).

12. The antibiotic era was not in sight when Partsch introduced cystostomy, which, fortunately, was not associated with the development of infection, therefore becoming the treatment of choice during the first decades of the 20th century
13. In 1932 E.B. Dowsett noted that enucleation often led to wound infection and treatment failure
14. Expanding on Partsch’s concept, Thomas described decompression in 1947. Thomas pointed out its benefits, which were maintenance of pulp vitality, preservation of the inferior alveolar nerve or maxillary sinus, prevention of fracture of the jaw, and low risk of recurrence
15. The term decompression encompasses marsupialization and is defined as any

method used to relieve intracystic pressure by keeping a patent opening into the exterior, which could be the mouth, nose, or maxillary sinus

16. The introduction of antibiotics was almost a death knell for marsupialization and decompression and at the same time acted as a lifeboat for enucleation and primary closure, which, aided by antibiotics, became the more accepted method of treatment owing to faster results

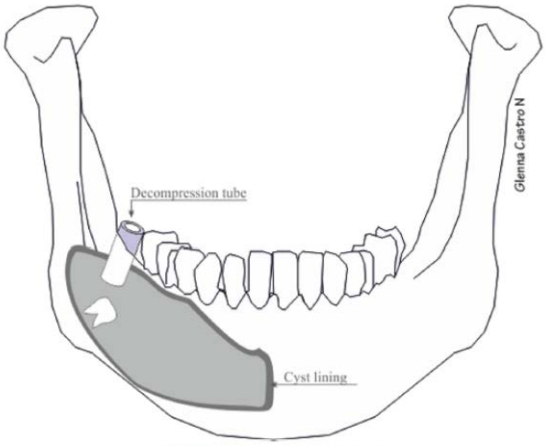


FIGURE 3. Decompression to the mouth.

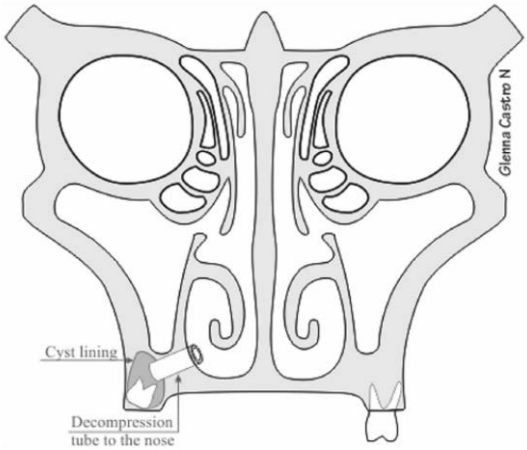


FIGURE 4. Decompression to the nose.

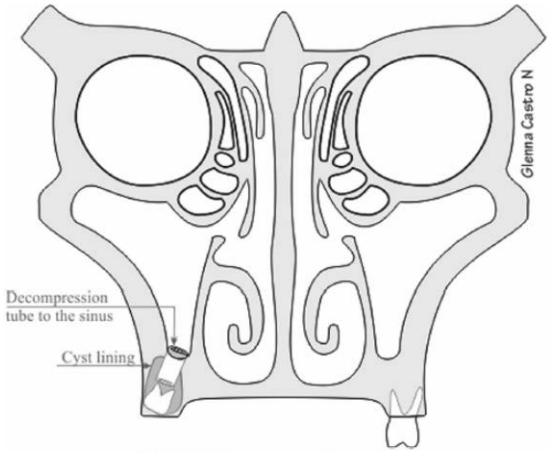


FIGURE 5. Decompression to the nasal sinus.

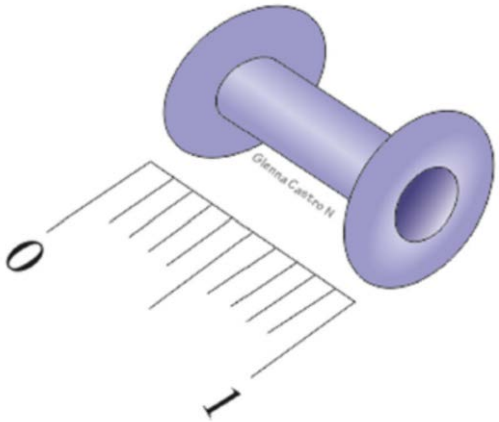


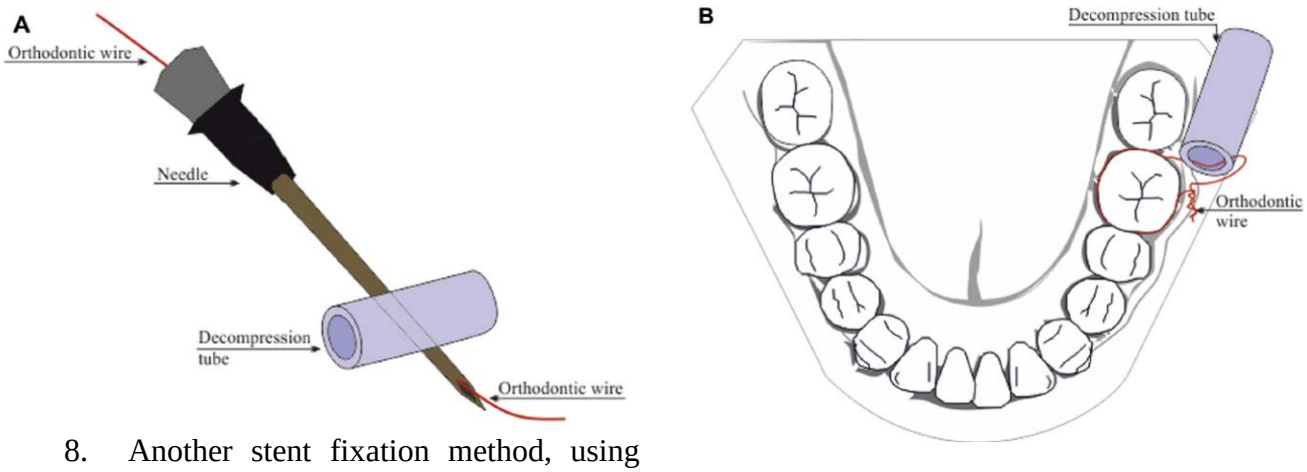
FIGURE 6. Decompression plug as described by Marker et al.[46]

17. Another factor that reinforced the idea that marsupialization and decompression should be avoided was the better understanding of what Hans Peter Phillipsen called the odontogenic keratocyst in 1956 (i.e., KCOT)
18. During the next 30 years, articles would warn against malignant transformation occurring within odontogenic cysts
19. Although marsupialization was deemed unpredictable at that time, a minority still had faith in it. What is more, the great surgeon Harry Seldin reported he usefulness of marsupialization as a presurgical treatment for unicystic ameloblastoma in children
20. To combat recurrence, aggressive methods prevailed until the end of the 20th century

VI. Reborn as the Phoenix: the Present:

1. In 1991 an article by Brøndum and Jensen paved the way for the reintroduction of marsupialization and decompression, which recently had resurrected like the Phoenix.

2. In 1996 Marker et al successfully decompressed 23 odontogenic keratocysts using small polyethylene tubes
3. They concluded that decompression resulted in new bone formation, thickening of the cyst wall, and conservation of bone and anatomic structures
4. Another interesting conclusion was that the keratocyst epithelium was modulated histologically to non-keratocyst after decompression
5. In 2007 Huang et al described a decompression plug for ameloblastomas. This plug, which is basically the same as that described by Marker et al, was effective in decreasing tumor volume and minimizing the extent of surgery
6. The following year, Tolstunov used a catheter for the same purpose. One of the drawbacks of decompression is the size of the tube, which could be dislodged over time
7. This issue was cleverly tackled by Kolokythas et al using a 16-gauge needle to create a passage for a 28-gauge wire that would be secured to the teeth



8. Another stent fixation method, using 1.2-mm screws, was proposed in 2012 by Swantek et al.
9. In 2014 Gao et al introduced a thermoplastic resin stent, with and without a clasp
10. In 2015 Delgado-Rueda et al maximized the benefits of decompression by using 2 decompression anesthesia tubes in the same patient

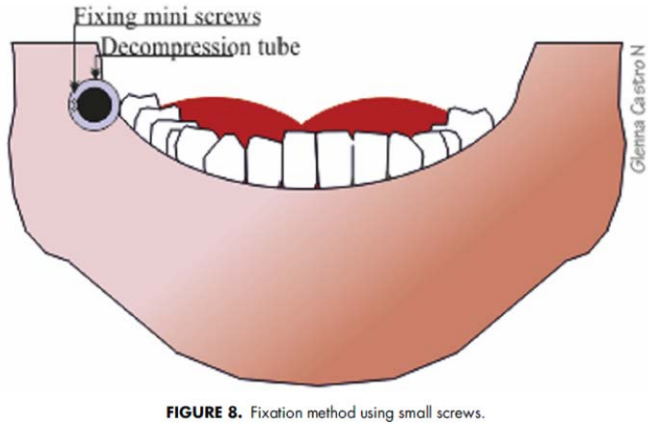


FIGURE 8. Fixation method using small screws.

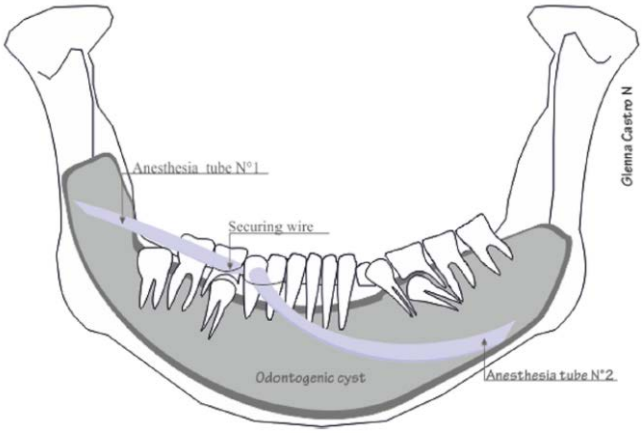


FIGURE 9. Two decompression tubes (double decompression) in the same patient.

VII. The Future of Decompression:

1. Decompression, as any other treatment technique, is not a panacea. The benefits of this old method have been described and proved over the years, and as patients and surgeons become less aggressive, this technique will become more popular when indicated

2. Cases must be carefully selected and the surgeon has to weigh many factors, such as patient age, type of lesion and time of evolution, and the patient's cooperation

VIII. A Closing Remark: Introduction and Acceptance of a Pleonasm:

1. The expression odontogenic origin, which was introduced to the dental literature in the late1970s. The expression odontogenic origin must be avoided because the term odontogenic already means that the condition being described is related to dental tissue

題號	題目
1	造袋術（marsupialization）常用來治療顎骨囊腫，但此一技術有下列那些缺點？①無法取得 全部病灶組織作病理學檢查 ②常需長期沖洗囊腔造成病患不便 ③手術困難度高 (A) 只有① (B) ①② (C) ①③ (D) 只有②
答案(B)	出處：Contemporary oral and maxillofacial surgery, p454
題號	題目
2	一位 20 歲的病患因為被診斷為含齒囊腫，其病灶在下顎右側第三大臼齒區，大小約 8 公分大，下列何種手術的組合最佳？ (A) 剜出術 (B) 剜出術合併下顎骨局部切除術 (C) 造袋術合併下顎骨局部切除術 (D) 造袋術後另行剜出術
答案(D)	出處：Contemporary oral and maxillofacial surgery, p450,454,458