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出國報告（出國類別：國際會議）

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第 25 屆國際兒童牙科醫學年會與論文海報競賽

③

服務機關：口腔醫學部
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出國期間：104/06/30-104/07/04
報告日期：104/07/21

摘要

正中贅齒的手術移除時機

正常齒列之外發現的牙齒，我們稱作多生牙或贅生齒。其盛行率亞洲族群約有 3%以上，較西方族群高。而所有多生牙中，又以上顎前牙區（正中贅齒）最為好發，約莫占九成。目前，多生牙的致病原因仍不清楚，雖然有許多遺傳性疾病皆與多生牙有關，但普遍認為環境亦為影響因子之一。

乳牙齒列時期，正中贅齒大多因為無症狀，患童常是在進行牙科例行性檢查，拍攝上顎放射線片時意外發現；大多數的患童則是在換牙時期，因為正中恆門齒有延遲萌發、間隙過大或錯咬等現象後，求診發現。針對正中贅齒的移除時機目前頗具爭議：部分學者建議儘早手術移除以避免上述可能產生的併發症--通常在孩童 5 歲前，但此時移除被質疑在手術過程中，可能對鄰近恆齒牙胚造成永久性的傷害；部分則支持應等到附近恆齒牙根形成完全後再進行手術移除，卻因錯過鄰近恆齒自我萌發及自行矯正萌發路徑的先機，後續常需要較複雜的矯正來解決正中贅齒造成的齒顎不正，且有較高的機率在移除多生牙後要手術暴露鄰近的阻生恆門齒；當然也有人認為，只要臨床上正中贅齒並無造成併發症、在定期追蹤放射線片也沒有囊腫化改變或有萌發至鼻腔的可能，便沒有移除的必要性。目前比較早期移除及延後移除正中贅齒的臨床研究仍是相當缺乏。

在收集 2005-2012 年於本院兒童牙科全身麻醉下手術移除正中贅齒、且有長期追蹤的案例一105 名病患、145 顆多生牙，年齡平均為 6.35±1.85 歲，經過統計分析得知：

一、 當病患在年齡小於 5 歲或正中恆門齒牙冠發育完成前進行正中贅齒的手術移除，與較高齡的病童相比，術前較少有多生牙相關併發症發現，且較能避免在移除正中贅齒後需要進行矯正治療或二次手術。

二、 術中傷害臨近恆牙牙胚的發生率，與病患的年齡、鄰近恆牙發育程度或多生牙的位置皆無顯著相關。

因此，當有全身麻醉做輔助工具及術前有詳細的資料收集（包括斷層掃描）時，儘早手術移除正中贅齒，術中並不會對鄰近恆牙發育造成傷害，且能避免後續多生牙併發症的產生及需要進行複雜性矯正的機會。

關鍵字：多生牙、正中贅齒、早期移除

目次

一、 目的：

正中贅齒的移除時機目前仍具爭議，常為避免傷害發育中的正中門齒延後手術，錯失早期移除後門齒自行萌發復位的機會。本部兒童牙科 7 年追蹤統計研究結果，早期手術移除正中贅齒，除減少複雜矯正的需要外，並不會增加恆門齒併發症的發生率。本研究獲得 103 年中華民國兒童牙科醫學會論文競賽貼示報告研究論文組第一名。

二、 過程

一、在今年將榮任國際兒童牙科醫學會(IAPD)理事長，本部兼任主治及本研究指導醫師蔡宗平的鼓勵下，將本研究論文貼示發表於年會上，並參與論文競賽。

二、參與了為期 4 日（7/1-7/4）的會議，學習兒童牙科領域的專業新知。

三、會後與台灣兒童牙科醫學會的會員們聚餐、交流。

三、 心得

一、接受評審的建議，mesiodens 改為 supernumerary tooth at the premaxilla 會更恰當，因為有學者定義 mesiodens 專指位於正中門齒間的多生齒，一個病患最多只會有一顆。

二、會後在與各教學醫院兒童牙科受訓醫師交流時，了解台北榮總的訓練明顯較為踏實（見下表），覺得幸運與珍惜。

	台大	北榮
上班時間	平日 9:00-17:00 無夜診。 周六診可補休	平日 8:40-17:30 每周 2 夜診，可補休 周六診，可補休
學術會議 頻率與時間	每周 2 次：中午時間	每周 3 次：兩次中午，一次下午 16:30-18:30
工作及訓練內容	-專科住院醫師：看診 -研究生：一周六診、做 study 寫 paper	專科住院醫師：看診、做 study、寫 paper

四、 建議事項

雖未在本屆競賽中獲獎，但透過參與此國際會議與競賽，將本國本院的研究發表出去，並透過與各國醫師、學者們交換意見，得到寶貴的經驗與了解如何能再做得更好。很有意義。

附錄

一、 論文貼示海報

二、 科內心得分享簡報

Timing for Surgical Removal of Mesiodens

Chun-Yi Hsieh, Tzong-Ping Tsai, Wen-Yu Shih
Division of Pedodontics, Department of Stomatology, Taipei Veterans General Hospital, Taiwan
Academy of Pediatric Dentistry

Background

A supernumerary tooth located in the maxillary central incisor region is called a mesiodens with higher frequency in Asia population about 3%. Timing of removing the mesiodens has been controversial. Clinical studies comparing early vs. late removal timing are lacking.

Aim

The aim of this retrospective study was to compare clinical complications related to timing of removing mesiodens in children and explore variables leading to its decision making.

Design

N=384
- 2005-2012, Dx: Mesiodens
- Pediatric dentistry, Taipei Veterans General Hospital, Taiwan
- Walk-in patients

N=118
- **Inclusion criteria**:
  1.Received surgical odontectomy under GA
  2.Complete longitudinal records including CT/CBCT

N=105 (145mesiodens)
- **Exclusion criteria**:
  1.Pathology-confirmed odontomas
  2.Syndromes associated to supernumeraries
  3.Hx of pathologic apical lesion or dental trauma over A or 1

Mean age=6.35±1.85 (3-12)

Comparisons were performed between different chronological ages, dental maturity stages of the permanent incisor (Nolla's method), and vertical location of mesiodens to see if there is significant difference at **1)**complications at the time of surgery; 2)having orthodontic tx./surgical exposure for 1 after surgery; 3)complications to the permanent teeth due to surgery**(Table 1)**. Fisher's exact test with a P-level of .05 for statistical significance.

Table 1. Complications to permanent teeth due to surgery

1.Dilacerations
2.Arrest of root development
3.Loss of vitality
4.Root resorption
5.Loss of lamina dura

Fig1,2,3. Cases with mesiodens-caused complications: 1)Midline diastema, 2)delay eruption of #11 yet the contralateral #21 had erupted, and 3)severe rotation of #21

Fig4.A case of mesiodens-caused root resorption and loss of vitality of #21, which had apexification after surgery

Results

- **Complications noted at the time of surgery:** 54 cases(37.2%).

Figure 5.The distribution about complications at the time of surgery at different chronological ages

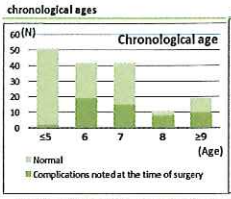


Figure 6.The distribution about complications at the time of surgery at different dental maturity stage

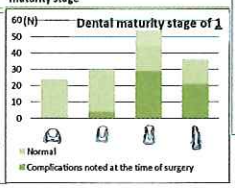
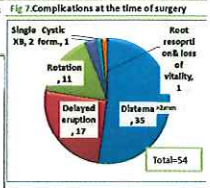


Fig 7.Complications at the time of surgery



Complications noted at the time of surgery are significantly associated at age ≤5 and dental maturity stage ≤ 7 (1/3 root complete). (P<.05)

- **Cases had orthodontic tx./surgical exposure for 1 after surgery:** 29 cases(21.7%).

Figure 8.The distribution about cases having orthodontic tx./surgical exposure of 1 after surgery at different chronological ages

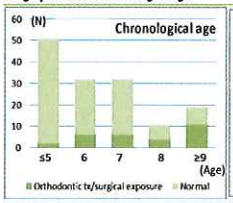


Figure 9.The distribution about cases having orthodontic tx./surgical exposure of 1 after surgery at different dental maturity stage

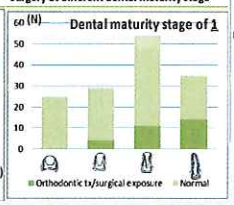
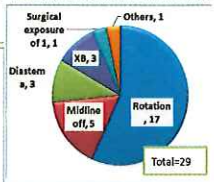


Fig 10.Chief complaints for orthodontic tx.



Cases had afterward orthodontic tx. or surgical exposure of 1 are significant associated at age <5, >8 and dental maturity stage <7 and > 8 (2/3 root complete).(P<.05)

- **Complications to the permanent teeth due to surgery:** N=5 (3.4%)

Figure 11.Proportion of cases with complications noted after surgery at different ages of patients

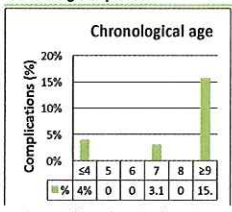


Figure 12. Proportion of cases with complications due to surgery at different dental maturity stages of 1

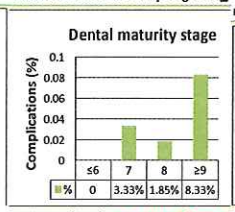
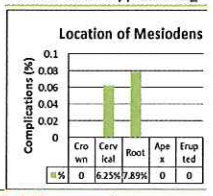


Figure 13.Proportion of cases with complications due to surgery at different location of mesiodens related to the nearby permanent 1



Complications due to surgery had no significant difference between ages, dental maturity stages, or locations of mesiodens. (P>.05)

Discussion

The finding of the current study shows about half of the mal-alignment problems at the time of surgery can self-corrected and no need of afterward tx. It supports previous theories that early removal of mesiodens can lower the need of orthodontic tx./2nd surgery as our patients pooled were young(mean age=6.4). In addition, most self-corrected problems are having large diastema, from 35 cases at the time of surgery to only 3 remained.

In the present study, only 3.4% of the cases had complications due to surgery and there is no significant difference between groups. This finding seems to be in contrast to earlier theories that early intervention would take great risk of harming the adjacent permanent teeth. This difference might be related to the improvement for locating the impacted mesiodens with help of CT/CBCT to diagnose 3-D spatial relationship with nearby structures.

Conclusions

Early removal of un-erupted mesiodens before age 5 and crown completed of permanent central incisors seems to be advantageous because it may prevent future mesiodens-related complications and the orthodontic treatment need. With the help of general anesthesia and CT imaging, the concern of child's cooperation and possible damages to adjacent permanent teeth can be overcome successfully.


IAPD2015
"The Voice of the Child"
IAPD 25th Congress, Glasgow, UK
國際兒童牙科醫學會
第25屆雙年會-英國格拉斯哥


會場位置: Glasgow, UK
會期: 1-4 July
IAPD2015
ATLANTIC OCEAN
Orkney
Thurso
Wick
NORTH SEA
Harris
Inverness
Peterhead
Benbecula
SCOTLAND
Aberdeen
Fort William
Dundee
Stirling
Edinburgh
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Newcastle Upon Tyne
Dumfries
NORTHERN IRELAND
ENGLAND
Belfast
-蘇格蘭最大城市與最大商港；1999年當選「建築與設計之城」
-英國第三大城市(倫敦、伯明罕、格拉斯哥/曼徹斯特)
SECC:
Scottish Exhibition and Conference Centre


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NATIONAL YOUTH CHOIR of SCOTLAND
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中華兒牙學會
開幕式場外大合影
IAPD2015

Keynote sessions

* Psychosocial impacts of appearance and oro-facial conditions
* Improving dental appearance for young people
* The child in pain
* Ethical and inclusive practice
* The scared child
* Caries diagnosis and management

Keynote sessions- Improving dental appearance

Keynote sessions- Improving dental appearance

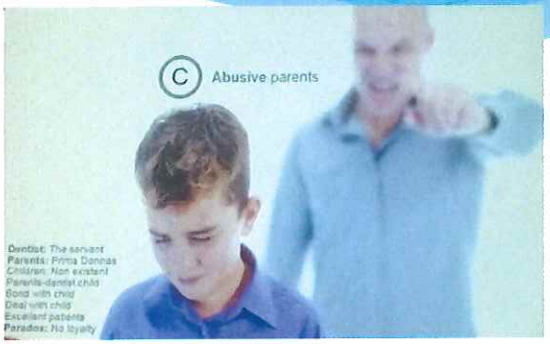
NOT PRETTY~~

Keynote sessions- Improving dental appearance

Keynote sessions- The scared child

Keynote sessions- The scared child

Keynote sessions- The scared child



Keynote sessions- The scared child

Changing the child's behavior

1. Never tag a child (ECC, pain in the neck etc.)
2. Parents not labeling his child (J is non adaptive, he will not wear his appliance)
3. Learn to say "NO"
4. Bonding to children. Detect potential dangerous behavior
5. Observe-THINK-understand-talk

Poster preparation

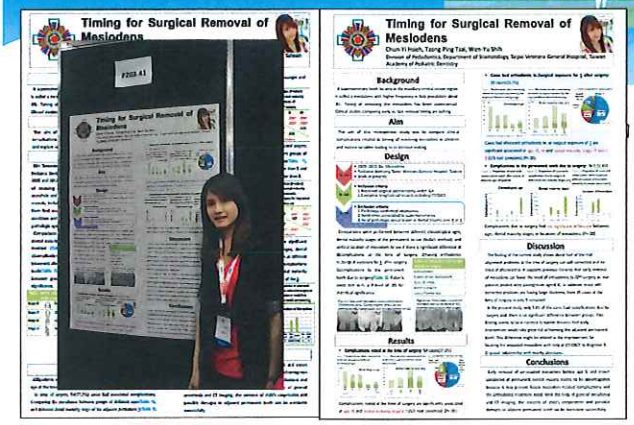
Poster preparation

Poster preparation

蔡宗平老師comment:
整張海報最大焦點就是妳的大頭貼... 囧

Poster preparation

Poster preparation



Lunch box

閉幕式接棒IAPD理事長
--本院兼任主治醫師蔡宗平

會後交流聚餐

會後交流聚餐，與大師Anna Fuks合影

會後聚餐，各院年輕世代交流

台大與北榮兒牙訓練比較

	台大	北榮
上班時間	平日9:00-17:00 無夜診。 周六診可補休	平日8:40-17:30 每周2夜診，可補休 周六診，可補休
學術會議 頻率與時間	每周2次：中午時間	每周3次：兩次中午， 一次下午16:30-18:30
工作及訓練內容	-專科住院醫師：看診 -研究生：一周六診、 做study寫paper	專科住院醫師：看診 做study寫paper

台大與北榮兒牙訓練比較

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學術會議 頻率與時		每周3次：兩次中午， 一次下午16:30-18:30
工作及訓練內容	-專科住院醫師：看診 -研究生：一周六診、 做study寫paper	專科住院醫師：看診 做study寫paper

與台大相比，
本院的兒牙訓練，
明顯地較為踏實許多！！

未來展望

↓

2019 Mexico

↓

Bid for 2021 IAPD Congress →Taiwan

* Congress over ~~~> Start playing!!

Glasgow

自 駕 Highland~~

哈利波特橋Glenfinnan Viaduct

哈利波特橋Glenfinnan Viaduct

Highland Cow

Highland Cow