



# MANAGEMENT OF MESIODENS IN CHILDREN

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## ABSTRACT

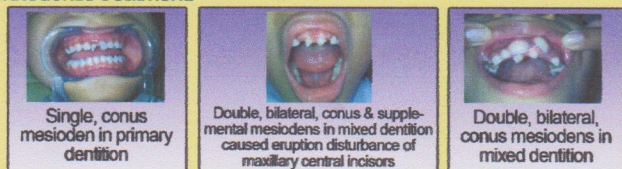
Supernumerary teeth may present in both permanent and primary dentitions, but less frequent in primary dentition. Mesiodens are the most common supernumerary teeth, may occur as single, multiple, unilateral or bilateral and in one or both jaws. The prevalence of mesiodens is reported to be more common in boys than in girls. Many complications follows the mesiodens and are usually responsible in disturbance growth and development of the jaws. The aim of this study was to evaluate the management of mesiodens in children. The success management of mesiodens in children depend on the case.

Key word : mesiodens, supernumerary

## INTRODUCTION

Supernumerary teeth are defined as any teeth in excess of the normal number, if they locate in the central region of the premaxilla, between two central incisors are called mesiodens. They may occur as single, multiple, unilateral or bilateral and which half are found in the anterior region. Mesiodens present in permanent dentition and primary dentitions, very few have been reported in the primary dentition, and frequently in boys than in girls. There are two subclasses namely, eumorphic and dysmorphic. The eumorphic subclass is usually similar to a normal-sized central incisor, whereas, the dysmorphic teeth categorized into conical, tuberculate, supplemental, and odontomes. Some complications cause by mesiodens are: crowding or abnormal diastema, displacement and / or rotation, failure of eruption, hindrance to orthodontic movement, enlargement of the follicle and possible cystic change, root abnormalities - dilacerations of the developing root. The most common complication is the eruption disturbance/delay in the maxillary anterior region.

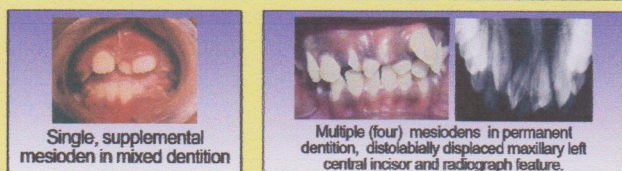
Most of the mesiodentes were found in the vertical position, followed by inverted position and horizontal position, and could erupted or impacted teeth. A radiological examination is of basic importance here for proper treatment planning and the management of mesiodens could be done by extraction, surgery and followed by orthodontic treatment.



Single, conus mesioden in primary dentition

Double, bilateral, conus & supplemental mesiodens in mixed dentition caused eruption disturbance of maxillary central incisors

Double, bilateral, conus mesiodens in mixed dentition



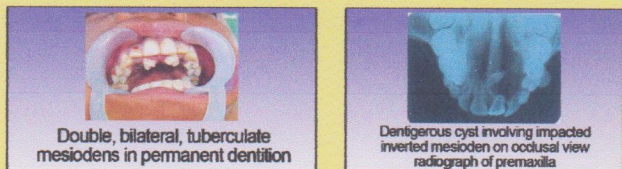
Single, supplemental mesioden in mixed dentition

Multiple (four) mesiodens in permanent dentition, distolabially displaced maxillary left central incisor and radiograph feature.



Single, molariform mesioden, palatally positioned and seen upon rising palatal flap

Occlusal view of molariform mesioden



Double, bilateral, tuberculate mesiodens in permanent dentition

Dentigerous cyst involving impacted inverted mesioden on occlusal view radiograph of premaxilla

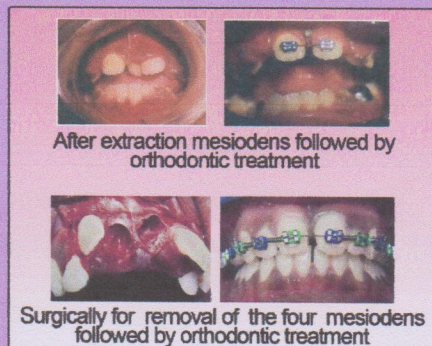
## DISCUSSION

In children and adolescents, extraction of mesiodens has been recommended in order to avoid the possible effects on occlusion as well as cyst formation. There are two methods for extraction of mesiodens; early / immediate extraction before root formation of the permanent incisors and late / delay extraction after root formation of the permanent incisors. The immediate removal versus delay in surgical intervention following root development of the central incisor and the lateral incisor, at about the age of eight to ten years.

Solares recommended extraction of mesiodens in the early mixed dentition in order to facilitate spontaneous eruption and alignment of the incisors. Henry suggested that delayed extraction of the mesiodens, at about the age of 10, when the apex of the central incisor nearly formed.

If treatment is postponed after this age, more complex surgical and orthodontic treatment may be necessary.

Extraction of a mesiodens at a time appropriate for promoting self-eruption in the early mixed dentition may result in better alignment of the teeth and may minimize the need for orthodontic treatment.



After extraction mesiodens followed by orthodontic treatment

Surgically for removal of the four mesiodens followed by orthodontic treatment

## CONCLUSION

Early detection and management of all supernumerary teeth is a necessary part of preventive dentistry. Extraction of mesiodens in the early mixed dentition helps spontaneous alignment of the adjacent teeth. In this way orthodontic problems and traumatic dental injuries to adjacent teeth and / or dental pathology associated with this dental anomaly can be avoided. At the end, the success management of mesiodens in children depend on the case.

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Presented at :

7<sup>th</sup> ACOHPSC (Asian Conference of Oral Health Promotion for School Children)

Sept, 12 - 14, 2013. Bali - Indonesia





Ref. No: (88)PP/7<sup>th</sup> ACOHPSC/VII/2013

Date: July 19, 2013

7<sup>th</sup> Asian Conference of Oral Health Promotion for School Children (Bali, Indonesia,  
September 12-14, 2013)

Dear

Dr Eko Sri Yuni Astuti

On behalf of the Scientific Committee, I am pleased to inform you that your poster presentation abstract have been accepted to the 7<sup>th</sup> Asian Conference of Oral Health Promotion for School Children that will be held in Nusa Dua, Bali from 12-14 September 2013

Please noted that this acceptance is conditional upon our receipt of payment of the registration fee.

In order to confirm the admission on this event, you are requested to inform us before 5 August 2013.

The following are guidelines for presenters.

1. The poster size is 120 centimeters high and 90 centimeters wide. Prepare a label indicating (a) the title of your paper and (b) the author(s) for the top of your poster space. Do not mount illustrations on heavy board because these may be difficult to keep in position on the poster board.
2. Poster boards mounted on stands will be provided by the Organizing Committee and placed in rows in the registration desk. Please pick up your poster presenter ID number and pushpins at this counter on the morning, 12 September 2013.
3. Participants should plan to place their materials on the poster board at least 15 minutes before the poster session is scheduled.
4. Materials must be removed from the poster board at the end of each day scientific session



5. Organizing Committee does not have reproductive or graphic facilities at the conference. **Electrical outlets, projection equipment, and tape recorders will not be provided in the poster session area.** All graphics are to be displayed on the poster board. Please note that it is **NOT** possible to write or paint on the poster boards.

If you have any further questions, please contact 7th ACOHPSC secretary Dr Leslie Nur Rahmani at 7th.acohpsc.bali@gmail.com or drg.lala@gmail.com.

I hope to welcome you in Bali.

Best Regards



Dr R.R. Nurindah K.



# Certificate

This is to certify that  
*Eko Sri Yuni Astuti, drg., Sp.KGA*

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*Has Fully Participated in*  
**7<sup>th</sup> ASIAN CONFERENCE OF ORAL HEALTH  
PROMOTION FOR SCHOOL CHILDREN**

as  
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September 12-14 2013, Bali, Indonesia



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Yang bertanda tangan di bawah ini Dekan Fakultas Kedokteran Gigi Universitas Mahasaraswati Denpasar, menugaskan yang namanya tersebut dibawah ini :

Nama : drg.Eko Sri Yuni Astuti,Sp.KGA  
Jabatan : Dosen  
Fakultas Kedokteran Gigi Univ.Mahasaraswati Denpasar

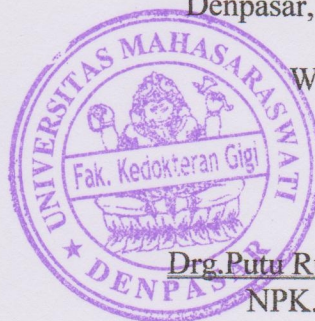
Sebagai peserta presentasi poster pada 7<sup>th</sup> Asian Conference of Oral Health Promotion for School Children, dengan judul Management Of Mesiodens In Children, pada tanggal 12-14 September 2013, di Nusa Dua Bali.

Demikian surat tugas ini dibuat untuk dapat dilaksanakan sebaik-baiknya.

Denpasar, 26 September 2013

A/n.Dekan

Wakil Dekan II



Drg. Putu Rusmiany.M.Biomed

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