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**Case Report** 

# **Anachoresis- Case Report**

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#### **ABSTRACT:**

Microbials are the main etilogical agents for dental decay in oral cavity. For dental decay microbials must attach to the surface of teeth to cause pathology. Anachoresis is the phenomenon through which blood borne bacteria, dyes, pigments and other materials are attracted and fixed to circumcised areas of inflammation. We represent a case, of one such pathology, in a 23 year old male patient with trismus and impacted 3<sup>rd</sup> molar in ramus associated with dentigerous cyst. The presence of caries in it could be attributed to the anachoresis.

Keywords: Anachoresis, Hematogenic spread, dentigerous cyst.

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## **INTRODUCTION**

Microbial infections are the main etiological cause of pulp and periapical pathologies and dental decay and gingival pockets are the main niche for the process. However, there is one more route via which microbial may reach pulpal tissue i.e., Hematogenic spread. The process through which circulating microbes, pigments, metallic substances foreign proteins and other materials are fixated to the areas of inflammation is called anachoresis.

### CASE REPORT

A 23 year old male patient from middle socioeconomic strata reported to Narula Maxillofacial Centre with a chief complaint of restricted mouth opening from 1 and half month. Following this patient noticed gradual swelling on left side of face which subsided after taking antimicrobial prescribed elsewhere. On examination reduced mouth opening (interincisal distance- 18mm) and restricted condylar movement of left side was noted. CT scan was advised, which revealed mandibular 3<sup>rd</sup> molar impacted and completely buried in ramal bone with no breach into the oral cavity or extra orally

associated with increased follicle size. Considering position of the impacted 3<sup>rd</sup> molar, its removal was planned to be taken under G.A. through extra-oral approach. Submandibular approach was taken to remove the 3<sup>rd</sup> molar. On removal, the 3<sup>rd</sup> molar was found to be carious. Thorough irrigation was done and surgical wound was closed in layer. Patient was put on empirical antimicrobial therapy post-operatively for a week. Subsequently the incision site healed and mouth opening of desired amount was achieved with excercises and physiotherapy. Histopathological examination revealed lateral dentigerous cyst.



CT SCAN IMAGES.



**INTRAOPERATIVE PICTURE** 



CARIOUS 3<sup>RD</sup> MOLAR AND ITS FOLLICLE

## DISCUSSION

The cause of the death of unexposed dental pulps has been discussed for many years. Boling and Robinson's' demonstration that self-strangulation of the pulp was not feasible suggested that inflammation alone would not cause pulp death. Kakehashi et al demonstrated the importance of bacteria in pulp death, in a controlled study of gnotobiotic and conventional rats. Grossly exposed pulps in the gnotobiotic rats healed without therapy and in the conventional rats became necrotic. Because bacteria can be found in most diseased dental pulps and not in noninflamed pulps, they have been considered to be an important factor in pulp death. The presence of bacteria in exposed dental pulps is the result of direct invasion from the oral cavity. Their presence in unexposed pulpsI' is less easily explained. Anachoresis is a rare and insidious pathology. Its etiopathogenesis can be attributed to the mibrobial adhesion to the periapical tissue from the blood stream in an otherwise sterile environment. The localization and fixation of bloodborne bacteria and other materials in zones of inflammation of the other parts has been experimentally demonstrated (Fox, J.P.1936 and Macintosh, 1958.). Robinson and Boling were able to culture organisms from the pulps of cats' teeth in which deep, clinically unexposed cavities had been prepared. These organisms had the same microscopic

appearance as those introduced into the cats' circulatory systems by intravenous injection. Burke and Knighton and Smith and Tappe were able to recover intravenously injected organisms from traumatized teeth of rats. Their theory can be applied to explain the inflammatory response and carious decay of the 3<sup>rd</sup> molar lying in an unbreached environment, therefore we hypothesize, after seeing caries in the tooth, that decay was caused though anachoresis and follicle got infected through blood borne infection.

### CONCLUSION

The important thing to bear in mind is whenever there is inflammatory response finding root cause is important. We advocate further studies to be done on the attachement of antimicrobials to undisesed part from elsewhere in the body and efforts should be made to isolate the organism from the anchoretic part to authenticate the theory of hematogenic spread.

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