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**Occlusal Trauma**

**Trauma from Occlusion**

The term refers to the tissue injury due to distortion caused by occlusion. However, this damage to the periodontium results from the occlusal forces caused by the attachment of the apparatus because it goes beyond the reparative area (Saravanan, Babu, and Rajakumar, pg 144). The trauma from Occlusion develops due to an interaction of multiple factors. All these factors are related to the occlusal forces, and the pressure exceeds the tolerance verge of periodontal tissues in an individual.

**Types of Trauma from Occlusion**

Trauma from Occlusion is classified into two types; Acute Trauma and Chronic trauma. The acute trauma from occlusion occurs due to the unexpected stress on the bitten objects, repairs or prosthetic apparatuses responsible for the occlusal forces on teeth. The symptoms of Acute Trauma from Occlusion are tooth pain, sensitivity to hitting, and greater movements of the tooth. On the other hand, chronic trauma from occlusion is caused due to slow changes in occlusion due to tooth wear, irregular movements, thrusting of teeth or compressing.

 There is another classification of occlusal trauma, which are primary and secondary. Primary trauma of Occlusion is caused due to the occlusal forces which are greater than normal occlusal forces on teeth. It is caused by several odd habits such as bruxism which included chewing of fingernails, pens or pencils. On the other side, secondary trauma is caused due to both normal and excessive occlusal forces acted on teeth due to periodontal attachment, which further harms already damaged part (Fan and Caton, n.p).

**Periodontal breakdown from Periodontal Disease**

 There are pieces of evidence which show that trauma from occlusion is related to periodontal disease. The trauma of occlusion is believed to be caused by the disorganization of periodontal tissues, damaging its usual reparation function, which can contribute to the extending of periodontal pockets and extent inflammatory exudate to adjacent tissues (Glickman and Weiss, pg. 16). Nevertheless, in other case inflammation of periodontal tissues are also related to plaque accumulation which influences gingival tissues. Trauma from occlusion takes place in the supporting tissues. Therefore, it cannot affect gingival tissues, and blood supply is not disturbed either.

**Treatment for the types of Occlusal Trauma**

The treatment of traumatic occlusion depends on the severity of the disease. However, the first procedure to treat trauma from occlusion takes place through occlusal equilibration, in which the surfaces of teeth are grinded for proper alignment and balance. Through this process, the pressure on teeth is minimized. The second treatment is “occlusal restoration” in which crooked teeth are changed by restorative procedures to improve the regular activities of the mouth. In addition, devices named jaw repositioners are used for the treatment of the traumatic occlusion. These devices provide a temporary solution while other treatments will be applied to correct the problem permanently. Other treatments can be orthodontics, occlusal adjustment, and Orthognathics. Orthognathic is a type of surgery in which upper and lower jaw bones alignment is treated instead of teeth. Likewise, Orthodontics is used to straighten the teeth. Occlusal adjustment is the adjustment of teeth which is done by using computer-based analysis. It is applied when there are shifting of teeth, grinding of teeth during sleep and temperature sensitivity.

**Teeth mobility**

 Severe teeth mobility is not a normal sign, at the adult stage if someone faces teeth mobility then it means a person is suffering from health problems. However, minor tooth mobility is acceptable. There must be minor mobility to adjust oral appliances such as braces. Otherwise, these devices are unable to perform their functions properly. On the other side, teeth move so much means they are going to lose so mobility should be treated right away before any issue occurs. So it means that mobility does not need to be treated all the time. In the case of huge mobility, there is a serious dental issue, and it can lead to severe consequences. There are multiple factors of increased tooth mobility such as occlusal trauma.

**Mobility and Fremitus**

Mobility is a measurement of the displacement of tooth horizontally and vertically. The displacement created by the investigating force applied which needs to be a nearly 100g force. On the other side, Fremitus is the measurement of the vibratory movements of the teeth, in case of contacting position and movement of the tooth. The main difference between mobility and fremitus is that fremitus is caused occlusal force created by the patient him or herself. Similarly, the amount of person varies from person to person in Fremitus whereas in mobility it is same for everyone.

**Trauma from occlusion cause Attachment Loss**

Attachment loss is the damage caused to the supporting bodies which surround the tooth such as periodontal ligament tissues. Periodontal ligament tissues are further attached to gingival tissues which cover the alveolar bone. Attachment loss is usually caused by periodontitis disease which destroys the supporting parts of the tooth. Occlusal trauma causes periodontics to break down, so it causes attachment loss. Shaking forces increase the rate of attachment loss, and the excessive forces do not allow the tooth to adapt or get away from the abnormal contact. Moreover, trauma from occlusion also causes angular defects due to huge pressure applied to the structures. The untreated occlusal causes trauma from occlusion resulting in the greater attachment loss. Likewise, it is experimentally proved on animals that trauma from occlusion increases the attachment loss it is because Occlusal trauma is one of the important factors which develops periodontitis (Nakatsu et al., pg. 318).

# Works Cited

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