Facts about Osteogenesis Imperfecta

Dental – Oral-Facial Issues

OI affects the growth of both jaws and tooth development. In addition, about 50% of people with OI also have dentinogenesis imperfecta (DI). Regular dental care is recommended for all people with OI beginning within 6 months after the primary teeth erupt and continuing throughout life. Other common oral cavity problems related to OI include impacted teeth, anterior and posterior open and cross bites and skeletal Class III malocclusion.

DI can often be diagnosed when the first primary tooth erupts. The severity of DI is not related to the severity of the person's skeletal issues and may differ among affected family members. Primary teeth are more significantly affected than permanent teeth. Teeth affected by DI are more fragile and break more easily. They are also more sensitive to hot and cold. Caps may be required to protect molars. Sealants are used when the enamel is intact. Once the permanent teeth erupt, restorative treatments are usually necessary to improve appearance and preserve chewing ability.

Malocclusion, or misalignment of the teeth and jaw, is frequently seen in people with the more severe forms of OI. Malocclusions affecting people with OI are specific to the condition and present unique challenges, many of which are still not resolved. One of the main issues is the development of a lateral open bite which keeps posterior teeth apart and does not allow for adequate mastication. Orthodontic treatment is possible in people with the milder forms of OI, depending on the condition of the tooth enamel. Orthognathic surgery may be necessary due to hypoplastic maxilla and changes in the position of basal bones.

Adults who have OI with and without DI need routine care to prevent tooth loss. Treatments may include cast metal or ceramic crowns, implants or veneers. Dentures are possible but bone loss in the jaw requires monitoring. Implants are rarely used in the more severe types of OI.

Concern about bisphosphonate induced osteonecrosis of the jaw persists. Information to date indicates that children who have been treated with bisphosphonates at doses appropriate for OI have not developed this problem. This has not been studied in adults who have OI.

Recommendations:

- Begin regular dental care at the time the first tooth erupts.
- Assess for DI and begin protective care to preserve teeth and normal jaw development.
- Goal of treatment for children and adults is to develop effective chewing and promote a healthy appearance.

References

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