

## CRANIOFACIAL AND ORAL FEATURES OF PALLISTER-KILLIAN SYNDROME: A CASE REPORT

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**Aim:** Pallister-Killian Syndrome is a sporadic and rare developmental disorder with an incidence of 1/25000 live births which presents multisystem involvement and caused by the presence of a supernumerary isochromosome 12p-(12)(p10) that determines 12p tetrasomy, with a mosaic distribution in different cell lines. Aim of this report is to refer the craniofacial and oral characteristics of a pediatric patient.

**Methods:** from the analysis of the literature, it can be seen that only few studies have so far focused on the oral health status of subjects with PKS. We report the clinical case of an 8-year-old child undergoing a dental examination at the Pediatric Dentistry department of the University of Palermo.

**Results:** the intraoral clinical examination showed poor oral hygiene with Plaque Index (PI) equal to 2, carious lesions

(dmft 7, DMFT 4), hypoplastic enamel of elements 2.1 and 3.1, anterior and posterior crossbite, third class molar and canine relationship and high and narrow palate with stair-palate appearance accompanied by mucous thickening of the upper alveolar arch. Bad habits of atypical swallowing and oral breathing are found. Craniofacial features include sparse hair, low implantation of the ears, muscular hypotonia, telecanthus, short nose with wide root and dorsum, long labial philtrum, Pallister lip, eversion of the lower lip, concave profile with maxillary retrusion and mandibular prominence.

**Conclusions:** this study underlines the importance of the multidisciplinary therapeutic approach, prevention and periodic dental checks for subjects suffering from PKS.

## WHITE SPOT LESIONS DURING ORTHODONTIC CLEAR ALIGNER THERAPY: A CASE REPORT

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**Aim:** due to an increasing demand for aesthetics, there has been a shift from fixed orthodontics with brackets to the use of clear aligners to perform orthodontic treatment. One of the advantages of aligners is that they allow patients to perform easier home hygiene and thus reduce the risk of developing caries lesions. However, even with the use of aligners, the occurrence of demineralization has been noted, which although showing less mineral loss is more extensive than lesions found around brackets.

We report a case of caries lesions in an adolescent caused by improper management of aligners.

**Methods:** G.C.14 years old, came to our attention due to the appearance of white, chalky, opaque stains visible on all teeth, both in the esthetic and non-esthetic areas, arising 6 months

after the start of the treatment. The patient is a mixed breather, has inadequate oral hygiene and the dietary history reports frequent intake of soft drinks even without removing aligners.

**Results:** the patient was motivated to improve oral hygiene, reduce dietary sugar and acidic beverages, to start home use of fluoride gel (1.25%) placed in aligners during night, to undergo hygiene and plaque control sessions and to apply fluoride varnish (5% NaF) quarterly.

Once a reduction in the plaque index was achieved, an infiltrating resin treatment was carried out to restore aesthetics.

**Conclusions:** although the risk of caries with aligners seems to be reduced, the orthodontist must carefully assess the risk factors, especially in adolescents, and check them before the start of treatment to avoid enamel damage.