

POINTS OF VIEW

A new conception about the etiopathogenesis of dento-maxillary anomalies

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Summary

The author exposes a new conception about the etiopathogenesis of dento-maxillary anomalies. He shows that the leading factor in the development of dento-maxillary anomalies is the disproportional growth and development of dento-maxillary system caused by accelerations of physical growth. Disproportion in growth and development involves morph functional disturbances the latter being the factor that favors the worsening in the dento-maxillary system imbalance.

The system analysis of factors and phenomena at the level of population, organism, separate organs as well as morphogenesis allows to explain the high frequency and increase of dento-maxillary anomalies caused by accelerations in physical development.

Key words: anomaly, acceleration, etiopathogeny, disproportion.

Studies made on the spreading of dento-maxillary anomalies demonstrate that their frequency is high and in permanent increase. The reason of this phenomenon was exposed some years ago by V. Ocusco [1] and I. Iluta [2].

At present, orthodontic science motivates the appearance of dento-maxillary anomalies through a great number of factors, both of local and general origin. At the same time, certain factors according to the studies, may influence the appearance of diverse anomalies. The stress of dento-maxillary anomalies etiopathogenesis is based on the multifactorial phenomenon which challenges contradictory debates and namely what are the decisive and encouraging factors, which influence the dento-maxillary anomalies.

The variability of multifactorial phenomena which cause dento-maxillary anomalies, as well as the increase of the frequency of anomalies may find explanation using the method "analysis in system", proposed by V. Ocusco [3], concerning the complaints of dental decay. Analysis in system permits to highlight various phenomena and factors referring separately to different levels of the system and namely: at the level of population, organism, organ, and also, morphogenesis.

At the level of population, the decisive factor of dento-maxillary anomalies is the dispro-

portion of development and growth of dento-maxillary apparatus, caused by accelerated somatic development and accelerated dental eruption, as one of the components of this phenomenon. Skeleton disproportion influences the disharmonious development and growth of the maxillo-facial skeleton. In its turn, the changes in development and increase of rhythm of position, of direction of the facial skeleton affects the normality or function of neuro-muscular system, the latter causing and aggravating the disturbance of dento-maxillary development and growth.

At the level of the organism, the accelerated eruption of teeth causes the disproportion between the dental system and the maxillo-facial skeleton, caused by the deficiency of synchronization between these two: dentition and that skeleton (these two systems - bony and dental, being completely independent). The changes of rate and succession of dental eruption increase this disproportion. Also does the persistence of decisive local factors as dysfunctions of the dento-maxillary system.

At the level of the organ, the dento-maxillary disharmony is influenced by the persistence of disproportion between the mezio-distal dimensions of permanent teeth and the perimeter of the alveolar arches. At the same time, the

asynchronism between the bony biological age and dental eruption causes the retardation of development and growth of the dental arches, due to the individuality and independence of growth of these two systems, alveolus and dental process. The epidemic dental decay, caused by the acceleration of dental eruption leads to precocious loss of teeth, fact that worsens the disproportion through the migration of teeth. Evidently, this disproportion stimulates the morphofunctional imbalance.

At the level of morphogenesis - the accelerated biorhythm of development and skeleton growth, inclusively that of the maxillo-facial skeleton, programmed by the phenotype, needs an energetic and plastic adequate support for the permanent remodeling of the bone, phenomenon present during the whole life. These mechanisms of synthesis, transportation and assimila-

tion according to the accelerated "biological" command may be forced, which can manifest through imbalance and may lead to growth disturbance of the matrix and mineral provisioning of the bone, process necessary for permanent remodeling of the skeleton. Thus, the osseous tissue becomes immature and may be subjected to serious disturbance of development.

So, the decisive factor in the appearance of the dento-maxillary anomalies is the disproportion in development and growth of the dento-maxillary system, triggered by accelerated somatic development and accelerated dental eruption. These phenomena explain the high frequency and in strong percentage of anomalies in the contemporary world. Exceptions are the dento-maxillary anomalies of general genesis, caused by concrete factors: hereditary, endocrine, dismetabolic.

References

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