Interests of the study of the cervical spine in Odonto-Stomatology

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Orthodontists and maxillofacial surgeons are, among all medical specialists, the ones who most often see the cervical spine of their patients, thanks in particular to the teleradiographs performed during the diagnostic workup. Curiously, this region is unexplored! This is all the more incomprehensible since many authors have long been interested in the existing relationships between the development of spinal and craniofacial structures: in anthropology, phylogenesis, comparative anatomy, ontogeny, pathology... Moreover, several craniofacial pathologies (syndromes, malocclusion, craniofacial asymmetry) present associations with spinal pathologies,

The craniofacial embryological complexity and the particular development of the cervico-occipital region where Occipital, Atlas and Axis are confused in the same embryological process, explains the polymorphism of malformations of the occipito-cervical hinge.
There are anatomical factors at the cervico-occipital junction that influence the vertical development of the maxillae and therefore the relationship between the upper and lower dental arches. Some specific arrangements can cause pathologies and should be considered as "risk factors" in addition to the cranial predisposing factors.
The study of the cervical spine, in particular the cranio-spinal articulation and the state of the base of the skull, allows for a better understanding of the etio-pathogenesis of certain facial dysmorphoses which are sometimes only the consequence of remote anomalies and which are factors of deterioration or recurrence of treatment.
Profile teleradiography, which is constantly prescribed in dentofacial orthopedics, allows the detection of numerous abnormalities of the cervical spine and in particular of the occipito-rachidian hinge. Some of them can have a very serious prognosis. The study of the cervical spine must therefore be systematic in the diagnostic workup of dento-maxillofacial dysmorphoses in order to make an early detection of anomalies, and not to undertake treatments doomed to failure.

The non-recognition and the absence of information of the patient (or his parents) of an existing spinal pathology could be reproached to the prescriber of this complementary examination...and condemned. Shouldn't the practitioner be able to interpret the entire examination that he has prescribed or performed?
It seems essential to include the study of the normal and pathological development of the cervical spine in the training programs of practitioners dealing with craniofacial pathologies.

Let us no longer ignore the cervical spine, let us move towards a spinal-cranio-facial orthopedics!

Salagnac JM, Delaire J, Mercier J. Vertical development of the face and cervical spine. Diagnostic and therapeutic significance in orthodontics and maxillofacial surgery. Rev Stomatol Chir Maxillofac. 1999 Apr;100(1):13-26.