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The Importance of Simulation in the Orthodontic and Orthognathic Cases

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Aim of Investigation: Simulation in Orthodontic and Orthodontic Treatments had been successor to other domains of Dentistry, as notions like VTO "Virtual Treatment Objectives" introduced by Ricketts et al, Set-up of the Study Models before the Orthognathic Surgery and recently the 3Dimentions Camera Simulator were blatant examples to the active simulation usage pertinent to our orthodontic daily practices.

Materials and Methods: In this presentation the author gives examples pertinent to his clinical practice about exploiting successively the simulation in daily Orthodontic practice. As Simulation is used in Orthodontic practice within the following approaches:

1. VTO "Virtual Treatment Objectives": It concentrates on the target of treatments virtually, what helps the clinician in discerning among several choices of possible treatment plans. The advent of the Sophisticated Computer Programs has helped the practitioners in choosing between multiple treatment plans, and participating with the patient's choices, as well. Nonetheless, the science is rapidly progressing in this predisposition, aiding us gradually in imagining the outcome of our treatment plans even before starting our treatments.
2. Set-up of the Study Models and CBCT "Cone Beam Computed Tomography" images: This approach is used often before the aesthetic and orthognathic surgeries, as it helps us in imagining the results of our treatment plan before the commence of the forthcoming surgery, what gives a paramount benefit to the practitioner in pondering the question of what are the options to be followed to treat the patient perfectly!
3. The 3-Dimentions Camera Simulator: This apparatus is the best simulator machine for the time being, as it gives the same consequences of the CBCT Set-up but with a "reality vision", as it enables the practitioner to see the result of any potential treatment plan on the face of his/her patient, even before starting of any potential procedure.

Results: Simulation in the Orthodontic and Orthognathic domains helps the clinician in better differentiation and in choosing the best approaches as to help the patients to get the best aesthetic consequences.

Conclusion: The simulation and Cyber World Vision are progressing rapidly in their medical and dental applications. However, efforts are supposed to be consecrated for getting better exploitation of the aforementioned notions as for better helping our patients.