K02

Aligner orthodontics: evolution of biomechanics, material and clinical application

Dr. Francesco Garino
M.D degree, University of Torino, Specialty in orthodontics, University of Padova

During his talk, Dr Garino will share several topics on aligner orthodontics and the evolution that took place in the last 20 years.

The first topic will cover biomechanics and its advancements with all features and protocols that have been introduced and that made many tooth movements more predictable due to the introduction of features such as optimized attachments. It will be shared also through the use of many reference in literature which are the strong point of evidence and which are the areas in which we need further improvement.

The second aspect will cover the evolution of materials and how far this made possible improve tooth movements also through the introduction of several protocols in aligner treatment.

Then Dr Garino will share with the audience which are the clinical efficiency of the system on the most frequent malocclusions such as Class II malocclusions, both with a pure approach and with a hybrid approach, Class III malocclusion with a orthodontic only approach. In addition to that ,vertical and transversal aspects will be highlighted both in non-growing and growing patients and how far we can go today in treatment with aligners not only in adults but also in teenagers and kids It will be highlighted the great importance of diagnosis in virtual planning and how accurate this tool has to be prepared and handled by the orthodontist.

Since last year the introduction of CBCT within virtual planning made more clear the entire diagnostic scenario and thus warning the clinician by potential mistakes during planning.

The last part of the presentation will also give some highlights about future evolution and wishes on making aligner treatment more mainstream.