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General Title: **Impacted teeth: the Orthodontic/Surgical Modality**

Lecture 1. Accurate Positional Diagnosis.

Diagnostic imaging plays an important role in pretreatment evaluation and decision-making process for orthodontic treatment of impacted teeth. Clinical information of the location of the impacted teeth is frequently sparse and the clinician must rely largely on radiographic evidence. The following information is essential for planning the best mechanotherapy strategy: exact positions of crown and root apex of the impacted tooth and the three dimensional orientation of its long axis; proximity of the impacted tooth to the roots of the adjacent teeth; presence of pathology and its spatial relationship with the impacted tooth; presence of adverse conditions affecting the adjacent teeth, including root resorption; 3-dimensional anatomy of the crown and root of the impacted tooth. Traditional 2-D radiography has many advantages in terms of radiation dose, availability and cost. Digital volume tomography (DVT) enables three-dimensional evaluation without adjacent structure overlap, improving the chances of treatment success. The relative merits of the various radiographic techniques and indications for the use of the newer modalities will be illustrated.

Lecture 2. Impacted incisors and the principles of orthosurgical treatment

Impacted incisors are usually the result of supernumerary teeth, odontomes and past trauma. The prevalence, diagnosis, timing and management of the patient will be discussed, together with the preparation for and performance of the surgical episode. We shall illustrate the efficiency of available appliance systems and their relative merits in relation to achieving an optimal outcome in terms of appearance and periodontal excellence.

Lecture 3. Impacted canines, surgical exposure and interdisciplinary cooperation

Are all impacted canines alike? There is a wide range of locations in which a canine may be found and for most of these there is a reasonable orthodontic approach that will lead to their successful resolution. There are several methods of exposure that may be indicated in different cases and their advantages will be discussed. Cooperation between surgeon and orthodontist is a factor that may make the difference between success and failure in these cases and a time-tested modus vivendi will be suggested. The audience will be shown how the design of the appliance auxiliaries may be altered to apply traction in a predetermined direction, to facilitate the eruption of the canine.

Lecture 4. Failure!

Orthodontic treatment of an erupted dentition is highly predictable, but the presence of one or more impacted teeth injects an element of uncertainty. The audience will be shown a series of cases analyzing the wide range of reasons for why treatment failed, where some could have been avoided, where others should never have been treated - at the same time and where appropriate, offering workable solutions to salvage a failing case.