have been no documented occlusal changes and TMJ symptoms for a period of time before institution of treatment. Condylectomy and costochondral graft (CCG) reconstruction represents an alternative strategy for management of idiopathic condylar resorption. This treatment should be considered for stable patients requiring bimaxillary surgery and large mandibular advancements and all patients with active ICR.


57 Ideopathic condylar resorption: a clinical challenge
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Ideopathic condylar resorption is most often associated with orthognathic surgery but it may also occur in relation to conditions such as rheumatoid arthritis, systemic lupus erythematosis or be the result of treatment with steroids, trauma or even orthodontic treatment. The figures, as presented in the somewhat sparse literature, however, are alarming in that fairly high percentages are reported, particularly associated with some rather specific procedures, including anterior open bite associated with mandibular hypoplasia. Signs and symptoms that are pointing towards the development of condylar resorption post surgery will be highlighted and the natural course of events described. Unfortunately, no known measures exist, at the present day, to stop the process.

The existing literature on the aetiology and presentation of this condition will be presented along with some general guidelines for treatment.


58 Condylar resorption in severe malocclusion before and after surgery
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In the last five years we have corrected nearly 750 cases of severe malocclusion by bimaxillary surgery. 76% were Angle class II patients, 5% had an open bite, 19% were Angle class III patients.

In the anamnesis the TMJ was compromised in 3.6% of the cases. Probably these patients underwent a period of juvenile osteoarthritis during puberty. Most of the cases had a class II malocclusion and an open bite. We have seen more unilateral cases than bilateral ones. More than 90% were female. On the X-rays we found an impressive posterior rotation of the mandible with increasing of the overjet. In the last five years we found reasons for this phenomenon in 13 patients before operation: professional sports, such as athletics, golf, tennis and professional playing the violin. All of them underwent gynaecological examination. There was found amenorrhoea, irregular menstruation, inadequate contraceptive. Hormonal treatment was done to normalise the cycle period.

The amount of jaw advancement was determined our treatment success. The more we elongated the mandible, the more condylar resorption was found. Because of this risk factor we changed our protocol of planning surgery:

We reduced the distance of jaw movement in bimaxillary surgery. For example we reduced the maxillary advancement in class II patients. In severe cases the correction was performed in two surgical steps within one year. At first vertical ramus distraction or SARPE and after one year bimaxillary surgery. One year after surgery we have seen stable results in more than 97% of our patients.

In the post op follow up we found only one case of unilateral progressive condylar resorption. Two different corrections by distraction and secondary BSSO were performed. We reached an improved but not a sufficient result.


59 Management of condylar resorption before, during, and after orthognathic surgery
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This prospective study selected 21 patients who underwent orthognathic surgery for bite correction. Study selection included preexisting CBCT condylar resorption and class II malocclusion. No patient was dropped from the study.

Bimaxillary counter clockwise advancements were accomplished following treatment planning as described by Arnett1. The average advancement at ANS was 62 mm, maxillary incisor 6.73 mm, mandibular incisor 12 mm, and Pogonion 22.5 mm. The mandibular occlusal plane decreased from an average of 109–93°. No concomitant TMJ surgery was done.

Surgical techniques were utilized to minimize post surgical mandibular relapse including, pre and post surgical TMJ medical management4, non-compressive condylar seating5,6, short BSSO splitting technique, BSSO mini plating without clamping7, and postsurgical skeletal and Class II elastics.

The patients were followed for a minimum of 12 months post surgically. At longest time point (average 36 months) all patient were without TMJ pain, had normal opening range, and had clinically stable occlusions.

References


60 State of the art in dento-alveolar trauma
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This state of the art lecture will give an overview of recent research and clinic in dentoalveolar traumatology aimed at Oral & Maxillofacial Surgeons, who often are the only specialists available in the hospital for this type of injuries outside office hours. Recent evidence from scientific literature and currently recommended treatment according to the new guidelines for emergency treatment of dentoalveolar injuries from International Association of Dental Traumatology (www.iadt-dentaltrauma.org) will be presented. Emphasis will be put on what