

SURGICAL TREATMENT OF PROGENIA BY USE VERTICAL OSTEOTOMY-OUR EXPERIENCE

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SUMMARY

The author shares his experience from the use of vertical osteotomy on the (ramus) of the lower jaw (mandible) for the treatment (third class deformity) of progenia.

The work done covers 10 patients for the period 2003 till 2008. The level of expression of deformity in the separate patients varies. Good early and late results for all patients are reported. This is explained with the correct orthodontic preparation following occlusoarticulation relations, the broad contact between the fragments of the osteotomy combined with stable fixation and appropriate pre-operation medication. The lack of relapses in all patients is based on the combination of the above mentioned elements of the treatment.

Key words: progenia, surgery, vertical osteotomy

The vertical osteotomy is one of the reliable methods used on the ramous mandible. The method is used for the correction of the progenia, both in symmetrical and non-symmetrical cases. It has been first used by Babcock in 1910. Venzile perfects the osteotomy, by removing a triangle fragment with its base upwards towards the incisures. The method improved by the author is used in progenia combined with an open bite.

In the current publication we aim at sharing our experience in the use of vertical osteotomy of the ramous of the mandible in the treatment of (third class deformity) progenia.

MATERIALS AND METHODS:

The material covers ten cases aged between 17 and 29 years. Seven of them are female and three male, while in two of the patients the progenia is combined with an open bite. In five of the ten cases a preliminary orthodontic treatment has been performed to correct the teeth arcs in view of the achievement of normal occlusionarticulation relations following the reconstruction of the bite. In five other patients there was no need of such preparation. In two of the progenia combined with open bite cases there was a need to perform the removal of a triangle bone piece from the area of the incisures.

The preliminary contact points in placing the models before the operations from third to first class deformities have been eliminated before the operations. All patients have received splints ambulatory one day before the surgery. The prophylactic antibiotic and anti-edema therapy has been started in the day prior the surgery in order to eliminate eventual post-surgery complications.

The shortening of the jaw with vertical osteotomy has been performed via extra oral approach in all patients.

Following the performance of the osteotomy on the process of the mandible we have decorticated the anterior fragment from the external side and the posterior – from the internal side. Thus we have achieved broad contact between the fragments of the osteotomy line. Following the reconstruction of the bite we have performed an osteosynthesis in two positions on each of the two ramous (Fig .1). In this way we have created better conditions for the healing process, both through the broad contact surface of the fragments and their stable fixation with wire stitches. The intermandibular fixation has a leading role in the healing ramous.

RESULTS AND DISCUSSION:

The analysis of the ten cases shows good results both in the early and late post-surgery period. The successful reconstruction of the bite has been achieved also with the help of the occlusion preparation, via orthodontic treatment and selective filing of the preliminary contacts in the ambulatory. All these result in shorter duration of the surgical intervention.

The prophylactic medication combined with stable fixation form the basis of the reliable outcomes in all patients we have treated.

CONCLUSION:

The correct occlusion planning, the broad contact between the fragments of the osteotomic line combined with a stable osteosynthesis, fixation and medication are reliable prophylaxis of the relapses in this sort of progenia treatment.

Panoramia X- Rey of the same patient before (fig.1) and after (fig.2) the surgery osteotomy

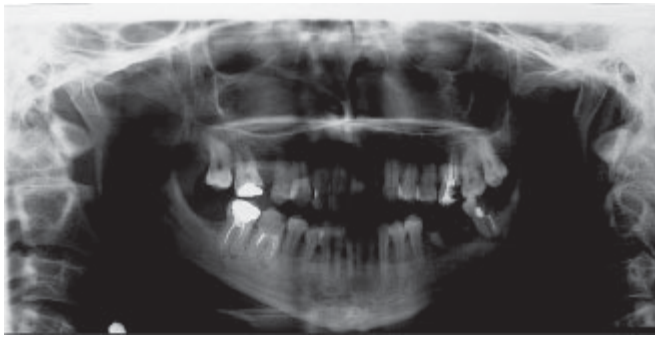


Fig. 1.



Fig. 2.

Cephalometric X- Rey of the same patient before (fig.1) and after (fig.2) the surgery osteotomy



Fig. 1.



Fig. 2.

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