been applied with osteotomy for lengthening the congenital mandibular deformities such as mandibular retrognathy. The technique of DO is accepted as useful for maxillofacial deformities. Particularly, in anterior positioning of the mandible for 10 or more mm DO is the favorable technique for orthognathic surgery.

References

[1] Rachmiel A, Aizenbud D, Eleftheriou S, Peled M, Laufer D. Extraoral vs. intraoral distraction osteogenesis in the treatment of hemifacial microsomia. Ann Plast Surg. 2000 Oct;45(4): 386–94.
[2] Rachmiel A, Manor R, Peled M, Laufer D.Intraoral distraction osteogenesis of the mandible in hemifacial microsomia. J Oral Maxillofac Surg. 2001 Jul; 59(7): 728–33.

P55 MANDIBULAR DISTRACTION OSTEOGENESIS IN CORRECTION OF MICROGNATHIA ACCOMPANYING OBSTRUCTIVE SLEEP APNEA SYNDROME. A CASE REPORT

H. Ishikawa[1], Y. Sato[1], K. Aiko[1], N. Arai[1], T. Amagasa[1], N. Matubara[2], K. Souma[2]. *[1]Maxillofacial Surgery, Maxillofacial Reconstruction and Function, Division of 1Maxillofacial and Neck Reconstruction, Graduate School, Tokyo Medical and Dental University, Japan, d; [2]Orthodontics Science, Department of Orofacial Development, Di, Japan*

A 36-year-old man who had been diagnosed with obstructive sleep apnea syndrome (OSAS) due to micrognathia was referred to our hospital. His chief compliments were micrognathia and snoring. He has been treated with nasal continuous positive airway pressure (NCPAP) at the department of internal medicine. Before operation, the angle of the sella-nasion-point B (SNB) was 60 degrees; apnea hyponea index (AHI) was 67 and the Epworth sleepiness scale score was 6. He underwent bilateral horizontal mandibular distraction osteogenesis using intraoral distraction devices. After mandibular distraction, SNB increased to 63 degrees, AHI decreased to 6 (within normal range), and the ESS score decreased to 1. Afterward he underwent genioplasty. Two years after mandibular distraction, no marked recurrence of OSAS was observed. We conclude that mandibular distraction osteogenesis is an effective method for correcting micrognathia accompanying obstructive sleep apnea syndrome.

P56 MANDIBULAR DISTRACTION OSTEOGENESIS IN PIERRE–ROBIN SEQUENCE

R. Fariña, L. Castellon, A. Basili, C. Montini, P. Villarroel. *Maxillofacial unit of Hospital Exequiel González Cortés, Mayor University, Chile*

The Pierre Robin Sequence is a malformation with a severe upper airway obstruction, associated to a severe micrognatia, glossoptosis and cleft palate. The management of the upper way obstruction in these patients has been very difficult. Classical techniques were prone position with a high mortality. Tracheotomy and gastrotomy were the first surgical approaches with a high morbid – mortality associated to them. We present a newborn female, 5 months old, who has a Pierre Robin Sequence with a severe upper airway obstruction. A Mandibular Osteogenesis Distraction was done with a distractor device (Molina type), to improve the mandibular length in order to allow the tongue reposition. We got 20 millimeters of mandible lengthening in 17 days of gradual traction and 4 weeks of consolidation period. After this treatment the patient showed a great improvement in her respiratory physiology, with an adequate facial balance. The mandibular osteogenesis distraction is the best surgical alternative to improve the respiratory obstruction due to the mandibular hypoplasia.

References

[1] Snyder, C., Levine, G., Swanson, H., Browne, E. Mandibular lengthening by gradual distraction: Preliminary report. Plast. Reconstr. Surg.
[2] McCarthy, J., Schreiber, J., Karp, N., Thorne, C., Grayson, B. Lengthening the human mandible by gradual distraction. Plast. Reconstr. Surg. 89:1, 1992.
[3] Molina, F., Ortiz-Monasterio, F. Mandibular elongation and remoleding by distraction: a farewell to major osteotomies. Plast. Reconstr. Surg. 96:825, 1995.

P57 BIODEGRADABLE SCREWS FOR THE FIXATION OF ALVEOLAR DISTRACTION DEVICES

M.M. Soares, F. Guerra, L. Marinho, D. Paiola. *Osteogenesis Institute, Brazil*

The aim of this paper is to present the preliminary results obtained with the use of biodegradable screws on the fixation of alveolar distraction On this study a group of 23 patients showing alveolar deficiency was selected, from which 20 presented maxillary atrophies and 3 showed posterior mandible atrophies with an average defect of 7.6 mm. The patients were submitted to the surgery for distraction osteogenesis under local anesthesia, being four patients with intra venous sedation. After the muco periostal flap detaching, the osteotomy was performed, extra alveolar devices were used. The transport disc were fixed by 1.5 mm titanium screws, and the rigid plates fixed using 1.7 an 2.0 reabsorbable screws (Lienbeinger and Inion). The surgical wound was closed (Vicryl 4–0) and after a healing period of 7 to 10 days the activation was done under a rate of 0.5 mm per day. An average period of 12.8 weeks was adopted for maturation. After the maturation period the second procedure was performed to remove the device and to install the implants. Through a palatine incision the transport plate was exposed and the titanium screws were removed, after that the procedure was recorded in order to register the time consummed to remove the device. An hemostathic was used to catch the tower and rotate it until the reabsorbables screws were fractured and the device released. During the distraction no inflamatory reaction for the reabsorbable screws was noticed.The lengthening ranged from 5.7 mm to 12 mm with an average of 10.5 mm. All the vector planed was maintained and the screws showed to resistance enough for the distraction procedures requirements. To compare the removal time, the starting time was considered when the device's tower was firmly attached until its complete removal. The average time was 19 seconds ranging from 10.6 to 26 seconds and no over force was necessary. On all patients, the implants were installed according to the prosthodontic protocol, however on one case a secondary autogenous bone graft was used in order achieve a better vertical crest position. This preliminary study showed that the mordidity of the removal procedure can be decreased by the use of biodegradables screws on the fixation of the distraction device.

Reconstructive Surgery

P58 A MODIFIED TECHNIQUE OF RADIAL FOREARM FREE FLAP ANASTOMOSIS

K. Balaraman, J. Thiruchelvam, K. Prabhu, W. Halfpenny. *Barnet and Chase Farm Hospitals NHS Trust, Enfield, United Kingdom*

Composite fascio-cutaneous free flap based on the Radial artery is possibly the most common free flap used in head and neck surgery. The problems encountered during anastomosis include kinking of the pedicle and choosing vessels for anantomosis due to the presence of the end of the artery and vein lying in close proximity to each other. We describe a technique to overcome the above mentioned difficulties. The technique used in our unit includes two modifications to the conventional one. First, while harvesting the pedicle, the vena comitantes are traced proximally till they join into a common vein which drains into the superficial system of veins. Secondly, in the recipient site during anastomosis, the artery is dissected out of the pedicle at the middle or at the level of anastomosis while the venous anastomosis is carried out at a distant site from the arterial anastomosis if required. This technique gives extra length and larger calibre of vein for anastomosis. It also prevents kinking of the pedicle as it is flexible enough to accommodate arterial and venous anastomosis away from each other. This technique is simple and as effective as conventional anastomosis. It also helps in overcoming the usual difficulties encountered during conventional anastomosis.

P59 THE USE OF MEDPORE IMPLANTS TO CORRECT TEMPORAL FOSSA DEFECTS – A SERIES

D.P. Pierse, J.M. Ryan. *Sunderland Royal Hospital, Kayll Road Sunderland, Tyne and Wear, United Kingdom*

Following transcranial access to intracranial bleeds or tumours temporal fossa defects are not uncommon. There are several methods to correct