



Correction of post ankylosis facial asymmetry with bimaxillary distraction osteogenesis—Case report

PDF (Size:694KB) PP. 255-259 DOI: 10.4236/ojst.2012.24045

Author(s)

U. S. Pal, Nimisha Singh, Laxman R. Malkunje, R. K. Singh, Chandan Gupta, Sharad Chand

ABSTRACT

Facial asymmetry can be acquired or congenital. Patients with facial asymmetry are not always functionally disturbed by the malfunction but are usually very much disturbed by their external appearance. Depending on the degree of asymmetry and deformation, the surgical procedure may vary in complexity and extent. The extent of surgery can range from a genioplasty procedure to bimaxillary osteotomy, concomitant with augmentation surgery, genioplasty and craniofacial implants along with mandibular distraction. In severe cases, the soft tissue structures on the affected side may constitute an incredible resistance to stretching and can make the surgery considerably more difficult and liable to relapse. Here we represent a case of post ankylosis facial asymmetry with occlusal cant which was treated by bimaxillary distraction osteogenesis. Simultaneous mandibular and maxillary distraction corrected the facial asymmetry without disturbing the pre-existing compensated dental occlusion, and so there was no need for prolonged and difficult orthodontic treatment.

KEYWORDS

Facial Asymmetry; Occlusal Cant; Bimaxillary Distraction Osteogenesis

Cite this paper

Pal, U. , Singh, N. , Malkunje, L. , Singh, R. , Gupta, C. and Chand, S. (2012) Correction of post ankylosis facial asymmetry with bimaxillary distraction osteogenesis—Case report. *Open Journal of Stomatology*, 2, 255-259. doi: 10.4236/ojst.2012.24045.

References

- [1] Obwegeser, H.L. (1988) Variations of a standard approach for correction of the bird-face deformity. *Journal of Cranio-Maxillofacial Surgery*, 16, 247-265. doi:10.1016/S1010-5182(88)80059-3
- [2] Perrott, D.H., Umeda, H. and Kaban, L.B. (1994) Costo-chondral graft construction/reconstruction of the ramus/ condyle unit: Long-term follow-up. *International Journal of Oral and Maxillofacial Surgery*, 23, 321-328. doi:10.1016/S0901-5027(05)80046-3
- [3] Valentini, V., Vetrano, S., Agrillo, A., Torroni, A., Fabiani, F. and Iannetti, G. (2002) Surgical treatment of TMJ ankylosis: Our experience (60 cases). *Journal of Cranio-Maxillofacial Surgery*, 13, 59-67.
- [4] Liang, C., Wang, X., Yi, B., Li, Z., Wang, X. and Chen, B. (2002) Distraction osteogenesis for treatment of temporomandibular joint ankylosis. *Zhonghua Yi Xue Za Zhi*, 25, 807-809.
- [5] Sadakah, A. (1997) Distraction osteogenesis of previously grafted sites in the lower jaw. *Cairo Dental Journal*, 13, 9-16.
- [6] Padwa, B.L., Kearns, G.J., Todd, R., Troulis, M., Mulliken, J.B. and Kaban, L.B. (1999) Simultaneous maxillary and mandibular distraction osteogenesis with a semiburied device. *International Journal of Oral & Maxillofacial Surgery*, 28, 2-8. doi:10.1034/j.1399-0020.1999.280102.x
- [7] Politis, C., Fossion, E. and Bossuyt, M. (1987) The use of costochondral grafts in arthroplasty of the temporomandibular joint. *Journal of Cranio-Maxillofacial Surgery*, 15, 345-354. doi:10.1016/S1010-5182(87)80081-1

OJST Subscription

Most popular papers in OJST

About OJST News

Frequently Asked Questions

Recommend to Peers

Recommend to Library

Contact Us

Downloads: 39,434

Visits: 99,645

Sponsors >>

- [8] Lopez, E.N. and Dogliotti, P.L. (2004) Treatment of temporomandibular joint ankylosis in children: Is it necessary to perform mandibular distraction simultaneously? *Journal of Craniofacial Surgery*, 15, 879-885.
- [9] Ortiz-Monasterio, F., Molina, F., Andrade, L., Rodriguez, C. and Sainz Arregui, J. (1997) Simultaneous mandibular and maxillary distraction in hemifacial microsomia in adults: Avoiding occlusal disasters. *Plastic and Reconstructive Surgery*, 100, 852-861. doi:10.1097/00006534-199709001-00005
- [10] Cho, B.C., Shin, D.P., Park, J.W. and Baik, B.S. (2001) Bimaxillary osteodistraction for the treatment of facial asymmetry in adults. *British Journal of Plastic Surgery*, 54, 491-498. doi:10.1054/bjps.2001.3629
- [11] Guerrero, C.A., Pasteur, B.S. and Bell, W.H. (1997) Combined temporo-mandibular joint ankylosis release with mandibular lengthening via distraction osteogenesis. *International Congress on Cranial and Facial Bone Distraction Processes, Medimond International Proceedings*, Bologna.
- [12] Papageorge, M.B. and Apostolidis, C. (1999) Simultaneous mandibular distraction and arthroplasty in a patient with temporomandibular joint ankylosis and mandibular hypoplasia. *Journal of Oral and Maxillofacial Surgery*, 57, 328-333. doi:10.1016/S0278-2391(99)90683-3
- [13] Demir, Z., Velideglu, H., Sahin, U., Kurtay, A. and Coskunfirat, O.K. (2001) Preserved costal cartilage homograft application for the treatment of the tempromandibular joint ankylosis. *Plastic and Reconstructive Surgery*, 108, 44-51. doi:10.1097/00006534-200107000-00008
- [14] Miyamoto, H., Kurita, K., Ogi, N., Ishimaru, J.I. and Goss, A.N. (2000) The effect of an intraarticular bone fragment in the genesis of the temporomandibular joint ankylosis. *International Journal of Oral and Maxillofacial Surgery*, 29, 290-295. doi:10.1016/S0901-5027(00)80031-4
- [15] Saeed, N.R. and Kent, J.N. (2003) A retrospective study of the costochondral graft in TMJ reconstruction. *International Journal of Oral and Maxillofacial Surgery*, 32, 606-609. doi:10.1054/ijom.2003.0418
- [16] McCarthy, J.G., Schreiber, J., Karp, N., Thorne, C.H. and Grayson, B.H. (1992) Lengthening the human mandible by gradual distraction. *Plastic & Reconstructive Surgery*, 89, 1-8. doi:10.1097/00006534-199201000-00001
- [17] Molina, F. and Orfiz Monasterio, F. (1995) Mandibular elongation and remodeling by distraction: A farewell to major osteotomies. *Plastic & Reconstructive Surgery*, 96, 825-840. doi:10.1097/00006534-199509001-00011
- [18] Cohen, S.R. (1999) Craniofacial distraction with a modular internal distraction system: Evolution of design and surgical techniques. *Plastic & Reconstructive Surgery*, 103, 1592-607. doi:10.1097/00006534-199905060-00006
- [19] Kaban, L.B., Moses, M.H. and Mulliken, J.B. (1988) Surgical correction of hemifacial microsomia in the growing child. *Plastic & Reconstructive Surgery*, 82, 9-19. doi:10.1097/00006534-198882010-00003