INTRODUCTION: Orbital hypertelorism can exist in a variety of craniofacial anomalies such as midline anterior encephaloceles, frontonasal dysplasia, and syndromic bicoronal craniosynostosis. Facial bipartition corrects hypertelorism and benefits patients with a narrow, V-shaped maxilla. However, in young children with hypertelorism, there is a higher risk of injury to dental follicles. The supraorbital bipartition allows for correction hypertelorism in this younger population of patients undergoing frontal craniotomy without the need for osteotomies extending into tooth-bearing segments of the maxilla.

MATERIALS AND METHODS: The supraorbital bipartition technique was performed in 15 patients with hypertelorism. Of these, 3 patients had associated meningoencephaloceles, 5 patients had facial clefting, and 7 patients had hypertelorism associated with Crouzon or Apert syndrome. All patients underwent preoperative evaluation by neurosurgery, ophthalmology, and pediatrics. Neuropsychiatric testing and preoperative computerized tomography scans were performed. The technique, advantages, and complications are described.

RESULTS: The patient age ranged from 8 months to 8 years old, with a mean of 40 months. Seven patients were female, and 8 were male. All cases were uneventful. The interorbital distance was normalized for age in 11 cases. The remainder 4 cases had dramatic improvement in interorbital distance. Blood loss ranged from 250 to 600 ml, with mean EBL of 350 ml. Blood transfusion was required in 12 patients. No major complications occurred. In 4 cases, unilateral detachment of the medial canthal ligament occurred. In one case, bilateral detachment of the medial canthal ligament occurred. In all cases, these detachments were repaired intraoperatively. Two cases had minor wound dehiscence that healed with local wound care.

CONCLUSIONS: The classical techniques for management of hypertelorism entail either complete bilateral orbital osteotomies and translocation or facial bipartition. These techniques are not suitable for younger patients given the presence of tooth buds before the eruption of permanent dentition. In the proposed technique, the infraorbital osteotomy was avoided, thus sparing the developing tooth buds. The rate of complication of the present technique is lower than in the other techniques, with no major complications. The improvement in interorbital distance is comparable to that obtained with classical techniques.
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INTRODUCTION: Migraine headache is a very common disorder affecting 1.7%–4% of the world’s adult population. The first line therapy for these patients is usually a combination of conservative treatments. Despite this large variety of options available, some patients remain refractory. For such group, migraine surgery might offer a definitive solution for their medical condition. In these patients, migraine is usually caused by extracranial nerve compression due to vascular, fascial, or muscular structures nearby. The aim of migraine surgery is to relieve such compression at specific trigger points located in the occipital, temporal, and frontal regions.

MATERIALS AND METHODS: From June 2011 to December 2018, in our Plastic Surgery Unit at the University of Parma, Italy, we performed 235 surgical procedures for migraine in patients suffering from either frontal, occipital, or temporal headache. In patients with occipital and temporal migraine, nerve decompression was achieved by occipital and superficial temporal artery ligation, respectively. Vessels were previously localized by mean of portable Doppler device. In patients suffering from frontal headache, we performed nerve decompression with single-entry endoscopic myotomies of procerus, corrugator, and depressor supercilii muscles.

RESULTS: Among patient suffering from occipital migraine, 95% of them observed significant improvement of their condition, with 86% reporting complete relief. In temporal migraine, positive outcome was achieved in 83% of the patients (50% complete elimination and 33% partial improvement). In patient treated with endoscopic frontal myotomies, positive results were observed in 94% of the patients (32% complete elimination, 62% partial improvement).

CONCLUSIONS: Migraine is a common and debilitating condition that can be treated successfully with minimally invasive surgical procedures. We believe that vascular compression is the main causative agent in occipital and temporal migraine headache since the outstanding outcome that can be achieved by ligation only of occipital and superficial temporal artery ligation, respectively. Vascular stenosis is more commonly found in frontal headaches, and we performed single-entry endoscopic myotomies of procerus, corrugator, and depressor supercilii muscles.

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Clinical Course and Outcomes of Temporomandibular Joint Ankylosis in Patients With Craniofacial Microsomia

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BACKGROUND: Skeletal ankylosis of the temporomandibular joint (TMJ) can have debilitating consequences. We present an institutional experience of the surgical treatment of TMJ ankylosis in pediatric patients with craniofacial microsomia.

METHODS: Patients with TMJ ankylosis and craniofacial microsomia treated at our institution between 1976 and 2019 were identified through retrospective chart review including clinical records, operative reports, and imaging studies. Data collected included demographics, Pruzansky classification, TMJ ankylosis, surgical operations (mandibular procedures, tracheostomy, gastrostomy), and postoperative outcomes including re-ankylosis.

RESULTS: TMJ skeletal ankylosis was diagnosed in 15 patients (8 bilateral). Mean age at diagnosis was 6.7 (range, 0–18 years). Three cases of TMJ ankylosis were congenital and 12 were iatrogenic, occurring during the treatment of craniofacial microsomia (Pruzansky IIB: n = 5; III: n = 7). Ankylosis developed after distraction...