appearance but is not properly correcting vertical deficiency.[7] In osseous genioplasty, to fill the gap between the bone fragment and the symphysis, several bone grafts have been proposed: autogenous iliac bone, demineralized bone matrix, and even pieces of the mandible.[8] To our knowledge, no other author reported a surgical technique using third molar as a graft in augmentation genioplasty procedure.

Third molar is frequently removed during orthognathic surgery. When placed in the osteotomy, it acts like a bone graft providing stability to the mechanical structure. This technique is less invasive than iliac bone or calvaria bone harvest. It is an autologous graft so there is no risk of transmission of infectious disease like with fresh frozen allograft.[9] Over the past 20 years, this surgical technique has been performed on approximately 200 patients. No notable complications occurred. The tooth material is perfectly integrated in the bone healing process as presented in Figure 2A to C.

One minor disadvantage is the time spent to shape the third molar as a graft. Indeed, it takes time and experience to sculpt the molar at the right size. However, operative time is still shorter than if the graft is harvested from iliac bone or calvaria bone.

CONCLUSIONS

Third molar grafts are a good alternative to iliac or calvaria bone graft in augmentation genioplasty. It provides stable results in time with low morbidity.

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Management of Maxillofacial Trauma in Attempt Suicide Patients During COVID-19 Pandemic

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Abstract: The maxillofacial surgeon trained well to face the surgical challenges. In case of dealing with self-inflicted trauma, the surgeon must face the surgical as well as the psychological status of the patients. Five patients received in the emergency room suffering from maxillofacial trauma resulted from suicidal attempts. Unfortunately, 1 patient died, the other patients managed by providing surgical and psychological support. The cornerstone of managing such type of trauma needs appropriate communication between the family, surgical team, and the psychiatric.

Key Words: Coronavirus, COVID-19, lateral cervical flap, maxillofacial trauma, orocutaneous fistula, suicide

Coronavirus family is highly infectious; it could remain on surfaces for several days especially plastic, where the virus could persist longer than other surfaces. In the emergency room, all the patients should be considered infectious with this virus family until prove otherwise. New ideas and devices introduced to literature to protect the medical staff, some of these devices are three-dimensionally printed, and others used smartphone applications for diagnosis.[1–4]

Suicidal self-inflicted injury with an intention to die increased dramatically during the COVID-19 pandemic, which was related to depression and anxiety associated with economical and familial bad experiences, in addition to the psychological impact of isolation and the fear of morbidity and mortality related to this virus.[5,6]

From the maxillofacial point of view, the suicidal patient management differs from the nonsuicidal traumatized patients in the terms of the type of injury, the close relation with the facial structures, the psychological background, and the patient unwillingness to live anymore. Most commonly, they accept the lifesaving procedures without extensive multistage surgeries to reconstruct the disfiguring facial structures such as flaps or even the long-term follow-ups.[7]

Submental high-velocity gunshot wounds result in hard as well as soft tissue loss, mostly complicated by nasal airway damage, trauma to the orbital structures, loss of mandible, and maxillary bone and teeth.[8]

The aim of the study was to assess how the management of suicidal patients differs from traditional trauma patients.

MATERIALS AND METHODS

Five patients were admitted to the Ghazi Al Hariri hospital for surgical specialties (Baghdad/Iraq) suffering from a self-inflicted injury to the facial region by placing the gun or assault rifle under the chin in an attempted to suicide. These trials of suicide resulted in nonlethal disfiguring facial trauma.

The sources of firing were close to the mandible (less than 5 cm). All of the patients were admitted to the hospital immediately after the injury. The computed tomography was used as an initial assessment tool to check for the extension of the trauma. The opened wounds sutured in the emergency room while preparing for the operation (Fig. 1A-B). All the entrance points were at the submental area (Fig. 1C) with perinasal exit wounds.

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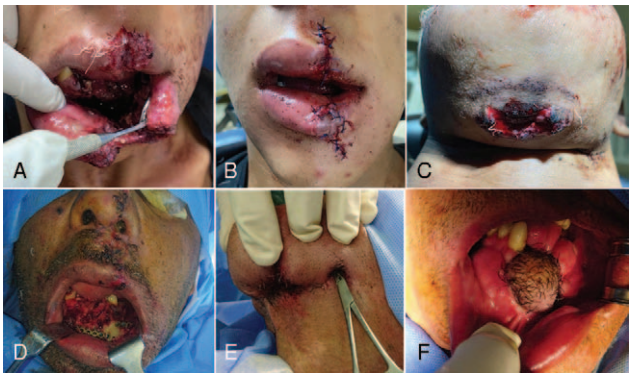

FIGURE 1. Management of suicidal patient: (A) Initial presentation with opened wounds. (B) After initial debridement and suturing. (C) Submental entrance. (D) Exposure of the bone graft and plates due to infection. (E) Orocutaneous fistula. (F) Lateral cervical flap (intraoral hairy part).

The first surgeries were to stop bleeding, debridement, immobilization of the fractured bones, approximation of the avulsed tissues, and suturing.

The last step in the management of such cases was prosthetic rehabilitation of the dentition to reconstruct the proper occlusion. In all the periods of the management, there was continuous psychological support for all patients.

RESULTS

All the procedures were performed under general anesthesia, 3 of them with a tracheostomy tube and 2 of them with nasal intubation. All the patients were males, the mean age of them was 39.8 years old (age range from 16 to 60 years old).

The extension of the hard tissue trauma was as follows; in 3 cases the mandible was involved, in 1 case the mandible and maxilla, and in 1 case the mandible, maxilla, and the nose.

The number of surgeries was 4 surgeries in 2 patients, 2 surgeries in another 2 patients, and 1 surgery in 1 patient. COVID-19 positive proved in 1 patient preoperatively during preparation for surgery.

The bone graft was needed (iliac bone graft) only in 1 case to reconstruct the continuity of the mandible. Bone graft failure and orocutaneous fistula occurred in 1 patient (Fig. 1D-E). Unfortunately, 1 of the patients (16 years old) died due to meningitis.

DISCUSSION

Management of self-inflicted maxillofacial injuries is challenging, not only repairing of the hard and soft tissue damage is required but the psychological status of the patient also needs to be managed. The other factor nowadays is the COVID-19 pandemic, which increases the difficulty of the operations for the surgeons because of the heavy scrubbing with more sweating, difficult breathing, and multi-glass or face shield layers affecting the function of vision. In addition to that, the viruses may be intense in the oral cavity; the site of our work. Testing for COVID-19 is required before major surgery in our hospital. Only 1 case revealed positive, which increases the time of preparations before surgery. However, the management of the patients at initial presentation in the emergency room follow the protocol as all the patients are COVID-19 positive until prove otherwise.[9,10]

One of the cases (male/16 years old), who had a fracture in the mandible discharged from the hospital after immobilization and fixation, returned to the emergency room with cerebrospinal fluid (CSF) leak causing meningitis (late presentation) and subsequently died, unfortunately. The reason was a delayed CSF leak due to a hidden, not discovered base of the skull trauma. Although the traumatic CSF leak is uncommon, the infection and mortality rate with persistent leakage is remarkable.[11,12]

The iliac bone is the more suitable donor site, it provides a good volumetric replacement of the lost bony part of the mandible; usually the anterior part. However, it has more rate of bone resorption and failure than other bones.[13–16] One of the cases undergone surgery under general anesthesia to remove an infected and exposed bone graft and plates with heavy debridement of the surgical site.

The orocutaneous fistula is troublesome to the surgeons, as the continuous pooling of saliva causes failure of the repair. The management of the orocutaneous fistula differs according to the site and size with the most significant factor to success is to find another nutritional route other than the oral cavity.[17–19] After 2 failed surgical procedures to close the orocutaneous fistula, the third surgery was succeeded to close it; the nasogastric tube was used to decrease the saliva stimulation in the oral cavity.

The lateral cervical flap is a good choice to fill the defects in and around the oral cavity.[20,21] It was used to close a large defect in the floor of the mouth. The heavy growth of the hair in the oral cavity (Fig. 1F) was managed by laser therapy, it became less apparent but it failed to remove it completely.

Management of patients who tried to kill themselves is difficult, attempts should be done to convince them to undergo the proper treatment even if it becomes long-lasting and to prevent the suicide trial again. These attempts require cooperation between the surgical team, psychiatric, and the most important the family of those patients.

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Optimizing Nasal Reconstruction in Severe Congenital Nasal Deviations

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Abstract: Nasal deviations pose a 2-fold task for plastic surgeons, as the correction must often address both functional and aesthetic challenges. Regardless of the etiology of the nasal deviation, the principles of treatment have been previously extensively described. The authors present an extreme case of congenital nasal deviation in an 18-year-old male acquired as a result of abnormal in-utero positioning during a multigestational pregnancy. Through this case, the authors demonstrate effective use of previously described surgical principles in treating a severe congenital nasal deviation and reinforce the importance of postoperative nasal manipulation to maintain the desired outcome.

Key Words: Congenital nasal deviation, nasal deviation, nasal reconstruction, rhinoplasty

Nasal deviations pose a challenging task for plastic surgeons, as the correction must often address both functional and aesthetic impairments. Typically, nasal deviations are due to a combination of bony pyramid pathology and cartilaginous septal deformity, with most patients presenting with features of both.[1] Consequently, the structure of the nasal valves may be altered, resulting in airway compromise.[2]

Although nasal deviations may be acquired through trauma or prior surgery, there are various causes of congenital nasal deviations. For example, in-utero constraint (ie, due to twin pregnancy) is a well-known factor in the development of congenital deformities. Regardless of the etiology of the nasal deviation, the principles of treatment for deviated noses have been extensively described.[3] The current report discusses an extreme case of congenital nasal deviation presenting in adulthood and elaborates on techniques used to optimize nasal reconstruction.

CLINICAL REPORT

An 18-year-old male was referred to plastic surgery with severe congenital nasal deviation secondary to abnormal positioning in utero. On examination, the patient had dramatic left-sided nasal deviation (Fig. 1A–C). There was decreased airflow bilaterally unimproved with the Cottle maneuver. The nasal, upper and lower lip, dental, and chin midlines were discordant. However, the patient requested focus on the nasal deviation only and consented for septorhinoplasty.

SURGICAL PROCEDURE

An open septorhinoplasty was pursued with a transcolumellar incision. Division of the lower lateral cartilages at the midline revealed an anterior septal angle that was notably shifted to the left. The cartilaginous septum was also significantly deviated with impingement against the right lateral nasal wall.

The vomerine crest of the maxilla was dissected and noted to be shifted acutely to the right, resulting in a right-sided convexity of the septum. The vomer was similarly deviated to the right, leading to septal cartilage abutment against the lateral nasal wall. After removal of the deviated bone, a large 1.5 cm L-strut of the quadrangular cartilage was preserved, and the remainder of the deviated cartilage was set aside to use as graft material.

FIGURE 1. (A–C) Preoperative photographs of patient from frontal, lateral, and basal views. (D) Postoperative frontal view photograph at six-week follow-up appointment. (E) Demonstration of manipulation performed by patient for three weeks following reconstruction.

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