Dear Editor,

In developed countries, the standard of care for cleft lip and palate deformity is complex and includes splinting in the neonatal period, multi-staged surgical interventions in early childhood, speech therapy, dental restoration, and orthognathic surgery. In underdeveloped countries, however, most cleft lip and palate deformities are treated with a definitive single-stage repair. This procedure is challenging not only because of the wide variation in cleft deformities but also because of operating conditions, often being performed in temporary camps set up by various non-governmental charity organizations. Although technically demanding, single-stage repair generally produces a satisfactory outcome, both in terms of patient health and patient satisfaction.

We surgically repaired various types of cleft lips and palates in various stages of the treatment process in our plastic surgery camps in underdeveloped countries. These camps provided us the opportunity to observe all stages of cleft lip and palate treatment in a single day through the spectrum of individual patients. Thus, we describe our experience as “cleft dependent” rather than time or patient dependent.

Patients

Seventeen plastic surgery camps were conducted by the author of this paper, a European Board Certified Plastic Surgeon (EBOPRAS) in Asia, the Middle East, and Africa between 2007 and 2013. These camps were organized and supported by the Turkish International Cooperation and Development Agency (TIKA) on behalf of the Turkish Branch of Doctors World Wide (DWW), which is a non-profit, non-governmental charity organization. These surgical camps were known as the Smiling Children Project and were similar to others such as Smile Train, Operation Smile, and Save Smile. The registered files of the patients were saved in the archives of the association. Informed consent was obtained in the native language of the patients, and all patients were treated free of charge.

Patients were initially assessed by a visiting doctor from the charity. Then, equipment was prepared prior to departure according to the list of scheduled cases. The operating team consisted of plastic surgeons, anesthesiologists, surgical nurses, and trainees. On the first day of the camp, all patients were examined by the plastic surgeon and anesthetist, and a tentative surgical schedule was created. Surgeries were generally scheduled by age, with younger patients seen earlier in the day. A total of 670 operations were performed, 431 of them were clefts, 181 were incomplete or complete unilateral or bilateral cleft lip, 101 were isolated incomplete or complete cleft palate, and 149 were complete unilateral or bilateral cleft lip and palate. Adult cleft lip cases were repaired under local anesthesia. All patients with cleft palate and cleft lip who were not suitable for local anesthesia were repaired under general anesthesia with endotracheal intubation.

Surgery

A standard Veau-Wardill-Kilner pushback palatoplasty was used for palatal repair, whether the cleft was complete or incomplete. A superiorly based pharyngeal flap was used for pharyngoplasty in cases of velopharyngeal insufficiency, which was diagnosed clinically. All cleft lips, complete or incomplete, were repaired using the Millard II technique. No alveolar bone grafting procedures were performed. Cleft-lip-nose correction, generally via open access, cartilage repositioning, and grafting from the conchal region, was performed in a significant number of late presenting cases. Columellar elongation was accomplished using fork flaps. A few rhinoplasties were also

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performed. Ancillary procedures included scar revision, notch correction, and fat grafting to augment depressed areas.

No mortalities occurred in any camp, and there were no significant perioperative or postoperative anesthetic complications. No abnormal bleeding or wound-related problems were noted. We were not able to evaluate late postoperative results as patients were discharged the day after surgery.

The current standard of care for cleft lip and palate deformities includes pre-surgical nasoalveolar molding during the neonatal period, multi-staged surgical interventions in early childhood, speech therapy, treatment of velopharyngeal insufficiency, dental restoration, and orthognathic surgery. The lack of experienced staff and adequate equipment, facilities, and assets in underdeveloped countries compels visiting surgeons to treat all deformities in one session.2,3,6,7,9,13-17 In our experience, single-stage repair of the entire deformity, although technically challenging, is feasible, reliable, successful, and safe. In underdeveloped countries where charitable plastic surgery camps are held, patients and parents both report a high degree of satisfaction with this approach because they may not have any other chance for surgical repair.2,5,10-12,18

One-stage simultaneous repair of a cleft lip and palate is technically more demanding and time-consuming than an isolated cleft lip or palate repair.19 However, the one-stage procedure is less time-consuming overall compared with multiple, separate surgeries, and provides the opportunity for complete recovery in one session. In our experience, the cleft repair is facilitated by a posterior approach that progresses forward, with wide exposure of anatomical structures. This allows excess tissue to be used for neighboring structures rather than for it to be discarded.

We did not experience any clinical problems or unexpected complications in our cases, although the lack of long-term follow-up prevented the documentation of post-surgical cranio-maxillo-facial growth patterns. Because some of our patients were already adolescents at the time of surgery, we did not expect any relevant links between our surgeries and their facial developmental patterns.

In our experience, surgery performed abroad is exciting and effective. A plastic surgeon may experience and observe every stage of cleft repair in a single day, and we call this “travel in time” cleft surgery. A day may start in the early morning with surgery on a newborn with a cleft lip, then proceed to a 1-year-old with a cleft palate, and followed by a child with a complete cleft lip and palate. Then, we may see a teenager with a small notch at the vermilion border, a child with velopharyngeal insufficiency, and one with a complete cleft lip and palate who is a candidate only for palatoplasty because the lip was repaired previously by another plastic surgeon during a charitable camp. Subsequently, we have a chance to observe an adolescent with a cleft-lip-nose deformity. Late presenting cases with a variety of cleft lip and palate deformities are a reality in NGO surgical camps in underdeveloped countries. Because complete cleft repair may require a patient to visit multiple charitable camps over time, every operation should be performed in a universal manner to facilitate the work of the next plastic surgeon.

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REFERENCES


