Facial Cleft Repair on Surgical Mission Trips: Safety, Feasibility, and Impact on Patient Quality of Life

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INTRODUCTION

Facial clefting is rare, with an estimated incidence of 1:4 to 4.9 per 100,000 live births.1 The exact incidence is difficult to determine due to rarity of these clefts. In November 2011 and February 2013, Children’s Surgery International sponsored surgical mission trips to Rangpur, Bangladesh after identifying need to provide cleft lip and palate surgery teaching to local surgeons in this area. During these two visits, 4 patients with facial clefts were evaluated, and 3 of these (Tessier 3 (n=1) and Tessier 4 (n=2)) were treated. Another patient with frontonasal dysplasia and a wide Tessier 0 cleft was screened and operative intervention deferred.

METHODS

Case series and literature review.

CASE REPORTS

Case 1

In November 2011, a 23-year-old woman with an unrepaired Tessier 4 cleft was encountered on the first trip to Bangladesh. Because of this deformity she had lost her right eye; she never left her home, and hence was never educated. The surgical team that year, led by Dr. Kofi Boahene (Division of Facial Plastic Surgery, Johns Hopkins University), decided to undertake soft tissue repair of her orbital cleft. She was followed up over a year later on the second trip to the country, and evaluated by the authors (Figure 1). She had healed well, and was no longer confined to her home, feeling free to socialize for the first time in her life. This transformation out of social isolation inspired the second surgical team to undertake soft tissue only repairs of two younger facial cleft patients that were screened.

Case 2

A 14-year-old boy with a Tessier 0-1 cleft was evaluated and noted to have extensive bony deformities and likely an extraoral cleft (Figure 2). This patient was referred to local resources for radiographic imaging and Dhaka for potential surgery. Without the availability of high-quality imaging, a neurosurgeon, proper equipment, and time during the mission, this patient had to be turned away from our services.

CONCLUSIONS

When feasible, a soft tissue-only repair of oculofacial clefts may offer an acceptable aesthetic result with a reasonable expenditure of resources, as part of a larger cleft mission. Facial clefts that require pre-operative imaging, extended procedure time, bone grafting, significant blood loss, and/or neurosurgical involvement demand a greater expenditure of scarce resources and are not advisable in the context of a surgical mission in most areas of the developing world.

REFERENCES


ACKNOWLEDGEMENTS

The authors thank Children’s Surgery International for their generosity in supporting these trips. The authors would also like to acknowledge Drs. Kofi Boahene and Timothy Lander for their work and leadership.

Figure 1. Patient with Tessier 4 facial cleft and loss of eye. A) Preoperative appearance. B) Appearance 14 months after surgery.

Figure 2. Patient with Tessier 0+14 cleft (frontonasal dysplasia) that was not repaired due to lack of resources (e.g., imaging capabilities, neurosurgeon, surgical equipment, time).