



Fig. 2. Patency testing of the repair by gently infusing normal saline through a blunt-tip needle inserted into the proximal vessel.

The patency of the anastomosis is assessed by inserting a blunt-tip filling needle attached to a syringe into the proximal end of the blood vessel and securing it circumferentially with a 5-0 Vicryl suture. Normal saline is gently infused and the patency of the anastomosis is assessed under the microscope (Fig. 2).

With limited resources and time during residency, a model that is cost-effective, efficient, valid, and reliable is needed. The standard rat femoral vessel model requires extensive institutional review board approval, coordination of multiple attending physicians and residents, ethical considerations, and the need for anesthesia, possibly rendering a less than favorable cost-to-benefit ratio. Advantages of chicken feet include minimal cost, ready availability, and easy disposal without concern for biohazard or institutional review board compliance. An obvious disadvantage of the chicken foot model is the inability to assess the anastomosis in the circulatory state; however, the injection of saline into the vessel with a blunt-tip syringe does offer some evaluation of the repair (Fig. 2).

To further supplement the educational value of our model, feedback should be implemented from expert surgeons to novice surgeons. At our institution, we will conduct observed graded sessions using the Global Rating Scale we are currently validating. Because the chicken foot is readily accessible, residents and trainees can work on their own, maximizing the number of times they practice to hone their microsurgical skills. DOI: 10.1097/PRS.0b013e318278d760

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DISCLOSURE

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Comprehensive Cleft Center: A Paradigm Shift in Cleft Care

Sir:

Much of the global surgical burden of disease can be addressed from operations under the domain of plastic and reconstructive surgery.^{1,2} Specifically, the high incidence of cleft lip and palate continues to permit plastic surgeons the opportunity to help patients and reduce this burden. In resource-constrained countries, assistance tends to arrive in the form of missions, with an overseas team performing repairs during a fixed timeframe before returning to their country. However, the mission model foments debate among cleft surgeons, with those against it raising issues with optimization of patients for surgery, entirety of cleft care, and adequacy of follow-up.^{3,4} Although two of the authors (A.P. and J.A.P.) have previously discussed the value of missions, particularly with academic university involvement,^{5–7} we share our experience with a comprehensive care center model that may address purported shortcomings, decrease the surgical burden, and potentially revolutionize the management of clefts worldwide.

Recently, Operation Smile has launched comprehensive cleft centers in various countries. These centers function as permanent hospitals and comprise local and international staff, and offer a broad range of services, from parental counseling to postoperative care year round. This enables the treatment of each cleft comprehensively and longitudinally, from nutrition to orthodontics to speech therapy. The continuity of care in conjunction with the sufficient postoperative follow-up period optimizes cleft repair on par with academic university cleft centers.

Moreover, various disciplines come together to achieve this aforementioned goal. This starts with the recruitment team, who visit areas in need surrounding the hospital to identify patients with clefts largely without the means of obtaining care. Admittedly, these recruitment workers do

not have a medical background, but the center offsets this by conducting a more rigorous screening consisting of the plastic surgeon, the anesthesiologist, the pediatrician, the nutritionist, and the dentist on the patient's first site visit. This ensures that the patient fulfills criteria for surgery, including certain age, hemoglobin, weight, and nutrition requirements, raising the chances of successful surgical intervention.⁸

On the day of surgery, a team consisting of a surgeon, anesthesiologist, scrub, and circulator works together to repair clefts. This year-round setup leads to a high volume of cleft repair that can facilitate efficiency and better outcomes⁹; the repetition can expedite the surgical process without compromising safety and potentially can lower the cost per operation. Ultimately, an experience of this sort engenders a collaborative spirit, where all participants take ownership of the patient, striving to overcome any setbacks, all for achieving the overarching goal of delivering the best care to the patient. Furthermore, in the comprehensive care model, the surgeon performing the original operation participates in follow-up care at 1 week, 2 months, and 6 months, permitting continuity of care in an effort to improve patient outcomes.

If academic plastic surgeons visit these centers, an incredible exchange of knowledge can occur.¹⁰ For example, given the specialization and repetitive nature, some centers tend to perform a selected cleft repair (e.g., Millard rotation advancement, Furlow double Z-plasty) with little variation; however, with visiting craniofacial surgeons, other options can be introduced, stimulating change that could be beneficial. Simultaneously, with the cleft center's tremendous potential clinical volume, quality improvement research investigations with institutional support can be conducted ranging from basic science to clinical outcomes. Above all, the permanent establishment permits the visiting medical professionals the opportunity to return and continue their efforts from where they left off.

The comprehensive care center provides a permanent, year-round, high-volume, dedicated cleft facility with a robust screening process and long-term, adequate follow-up that together can improve surgical outcomes. This model could prove to be a paradigm shift in how plastic surgeons will repair clefts as they endeavor to decrease the global surgical burden of disease.

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Orthoplastics: An Evolving Concept for Integrated Surgical Care of Complex Limb Trauma and Abnormality

Sir:

We very much appreciated and identified ourselves in the interdisciplinary scenarios of surgical care, surgical teaching, and surgical research depicted in the Viewpoint entitled “Building Bridges toward Interdisciplinary Surgical Care” by Fabricant et al. We congratulate and hope to meet the authors personally to compliment them. Our experience is also an example of deep professional, scientific, surgical, didactic, and friendly liaison between the experts of bone and the experts of soft tissues, orthopedic and plastic surgeons (orthoplastic service). This collaborative approach has been established for a few years already at the department of one author (U.K.), in particular, in the approach to open tibial fractures, a classic challenge for the two specialties. This conjoined work is based on the standards of care for the management of open fractures of the lower limbs in the United Kingdom, which were coauthored by one of the authors (U.K.) and represent a milestone in the consensus approach to these injuries, with both the British orthopedic and plastic societies taking part in it.¹ One key message in these guidelines is that these severe injuries should be managed at an orthoplastic specialist center, a