CHAPTER **49**

MEDICAL MISSION UPDATE 2008

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INTRODUCTION

The “Small Steps” medical mission team organized by Doctors Gunzy, Cicchinelli, and Haddon was invited to a new location in the country of El Salvador. The team has consistently traveled to El Salvador since 2003 after successive missions to Nicaragua, Venezuela, Columbia and Guatemala. In-country liaisons coordinated a specific mission to a more remote region of El Salvador, a region with many children in need of medical evaluation, a region where the main hospital was devastated by a major earthquake several years ago and a make-shift hospital made from an old rehabilitation unit. Two operating rooms (10 feet wide by 12 feet long) provided minimal room for only necessary equipment plus staff. Antiquated anesthesia carts and other equipment challenged our team with 16 years experience. Travel to and from the hospital took approximately 1 hour each way. The people of the particular town of Zacatecoluca, El Salvador are very warm and friendly, and were extremely accepting of our team visiting their city of 75,000 residents. The nurses and doctors were even more accepting and appreciative of the opportunity to work side and by side and exchange ideas. The mayor of Zacatecoluca and respective hospital personnel held a celebratory send-off the final day that included the mayor presenting the team with a framed certificate recognizing each team member as an “honorary citizen” of the town.

This was the fifth consecutive mission to El Salvador and the sixteenth overall since 1992. Continued computerization, photography, and recall of patients have allowed the team to expand its overall database. This has allowed numerous research topics to take place both abroad and at home, namely with clubfoot deformities. A total of twenty-two members attended this particular mission in addition to visiting surgeons from other countries. Healing the Children Greater Philadelphia chapter assisted in all travel, logistics, and coordination of details throughout the mission. The Podiatry Institute contributed personnel and financial backing. This is the eighth consecutive year of organized missions for the Podiatry Institute, with this particular team concentrating on Central and South America countries.

TEAM COMPOSITION

The team consisted of 22: 1 anesthesiologist, 3 nurse anesthetists, 3 podiatric surgeons, 2 foreign orthopedic surgeons (Germany, Guatemala), 2 operating room nurses, 2 operating room techs, 2 PACU nurses, 2 students, 1 administrator, 2 podiatric residents, a prosthetist, and a Podiatry Institute audio visual technician.

MISSION

The lead orthopedist at the hospital in the city of Zacotecoluca began an aggressive program to communicate to the citizens of the town the mission dates about 1 year prior to our arrival. The length of this particular mission was 7 days, 2 days of travel, 1 day of screening, and the remaining 4 days for operations. Necessary set up of equipment and supplies was slower than usual due to first time site visitation. The make-shift temporary hospital had 4 small operating rooms, of which the team used 2 for surgeries. The quarters were tight and cramped, with only enough room for equipment and necessary personnel. The first day, reserved for screenings, saw a greatly decreased number of patients but this was mainly due to a few dedicated orthopedists who had prescreened children prior to our arrival. There were a total of 60 children screened and 27 operated on yielding a 45% ratio of operations to screenings completed. In the past the ratios were more in the 23% range, thus reinforcing the importance of good quality screenings. Despite being 2 hours removed from our site last year, we were still fortunate enough to re-evaluate approximately 6 of our postoperative patients from the previous year.

Additionally, 7 patients per day were triaged throughout the course of the week for "add on" or "next mission" possibilities. Approximately 27 children were selected to receive surgery based on severity of deformity. These children were then medically cleared and pre-admitted to the hospital in preparation for surgery. The specific information for these patients was computerized and entered into the data base for recall prior to the next trip for continued follow-up. Additionally, more than 20 children received prosthetic and orthotic devices from the team prosthetist who continued to evaluate and treat patients during the week.

RESULTS

A 4-day surgical work week yielded a total of 27 children receiving surgery, the majority were unilateral operations at the request of the host orthopedic surgeons for reasons of reduced risk of major complications, ease of ambulation with crutches, and less materials used at dressing changes. Typical pathology encountered was talipes equinovarus, dropfoot, painful flatfoot, cerebral palsy-related deformities, severe metatarsus adductus, clawfoot, and severe degenerative arthritis secondary to neglected clubfoot in young adults. Typical procedures for these diagnoses included full posterolateral and medial release, talectomies, major lower extremity tendon transfers for paralysis of the lower extremity due to neurological involvement, ankle and subtalar joint arthrodesing procedures, bone grafting, numerous tenotomies, and midfoot osteotomies for metatarsus adductus and pes equinus conditions.

Upon recovery of the child in the PACU, each child was admitted postoperatively for 24 to 48 hours for pain control and observation. Once the child was comfortably tolerating oral pain medications, urinating, exhibited good appetite, and was overall in stable condition, he or she was discharged with postoperative instructions and oral pain medications. Follow up is handled by the local orthopedist at regularly scheduled intervals using our donated resources.

CONCLUSION

This is the fifth consecutive mission to El Salvador with a change in location to a more remote area underserved in the past. The mission is co-sponsored by the Greater Philadelphia chapter of Healing the Children and the Podiatry Institute. The team has been extended an invitation to return to the same site in one year for follow-up of postoperative patients and to provide the same surgical service. Twenty-seven children were operated on and all cases were unilateral at the request of the host surgeons. The majority of deformities were congenital or neurologic. Despite bilateral deformities, the local orthopedists request to perform unilateral surgery created much thought for this team. An algorithm was developed by this team as to when unilateral surgery may be better than a bilateral situation. The conclusion to this is if patient is ambulatory, unilateral is the best option, there is less risk, less complication, less infection, less stress, and overall, better quality. In such cramped quarters, there is always more space in the operating room when unilateral procedures are performed versus having 2 surgical teams with respective residents assigned to each limb. Forced follow up appointments are necessary due to necessity to operate on the contralateral extremity in a future return mission. Unilateral operations allow patient mobility with crutches and present less strain on the parents. Bilateral tourniquet problems such as lactic acidosis and length of spinal anesthesia are also avoided.

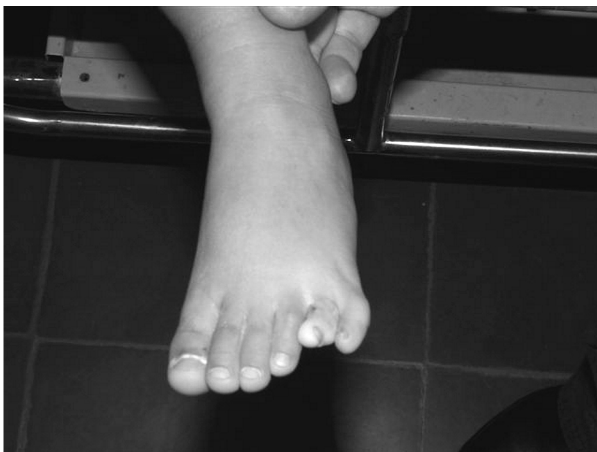

Figure 1. Congenital syndactyly with polydactyly.

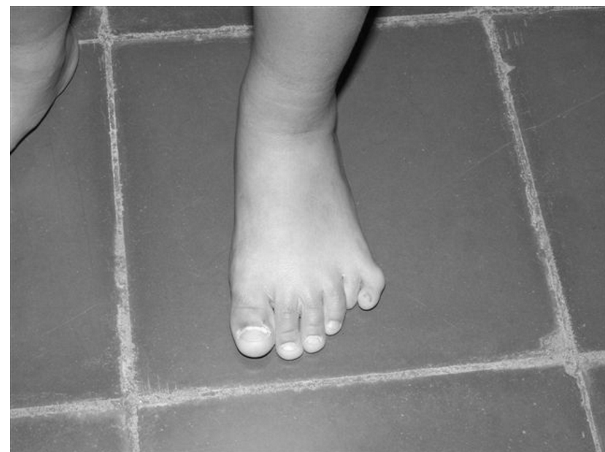

Figure 2. Congenital syndactyly with polydactyly of the left foot.

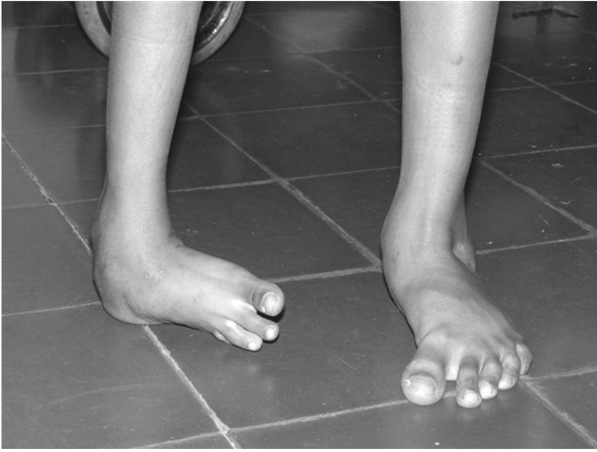

Figure 3. Neglected clubfoot.

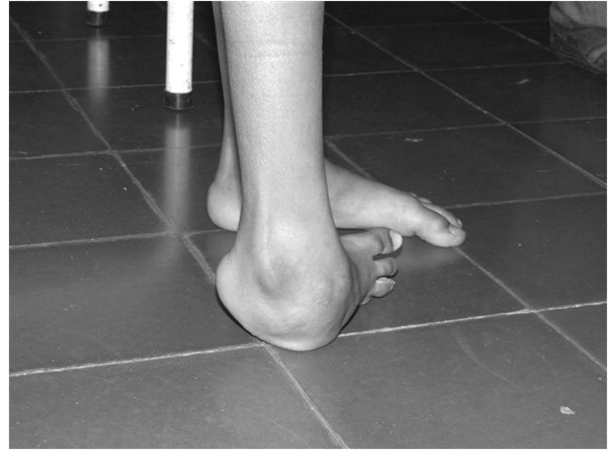

Figure 4. Neglected clubfoot.

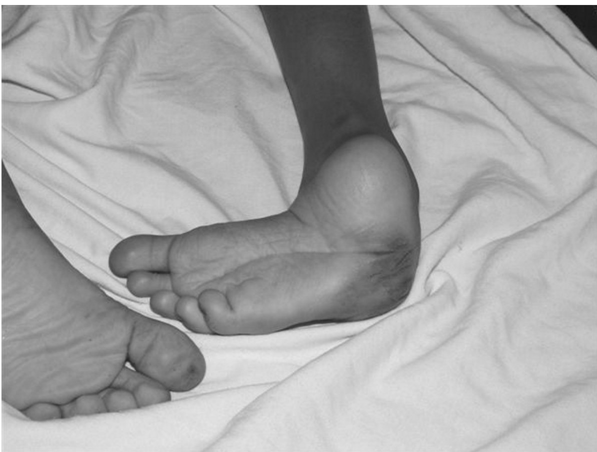

Figure 5. Neglected clubfoot.

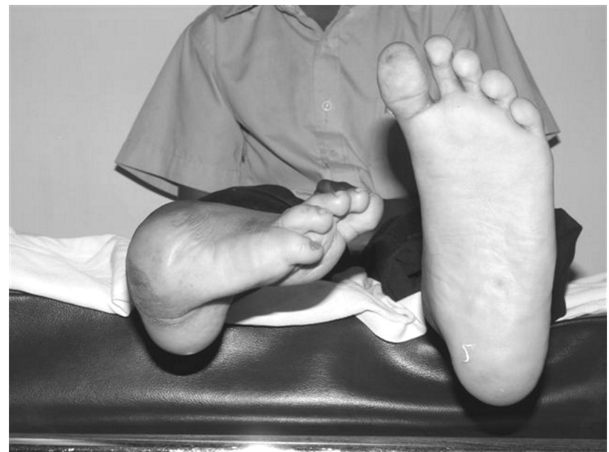

Figure 6. Neglected right clubfoot deformity.

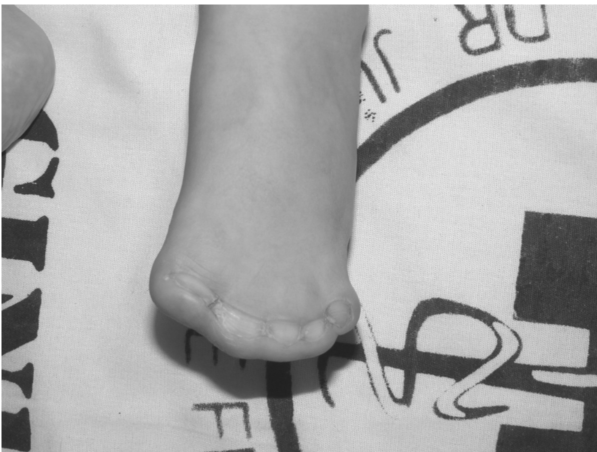

Figure 7. Apert syndrome.

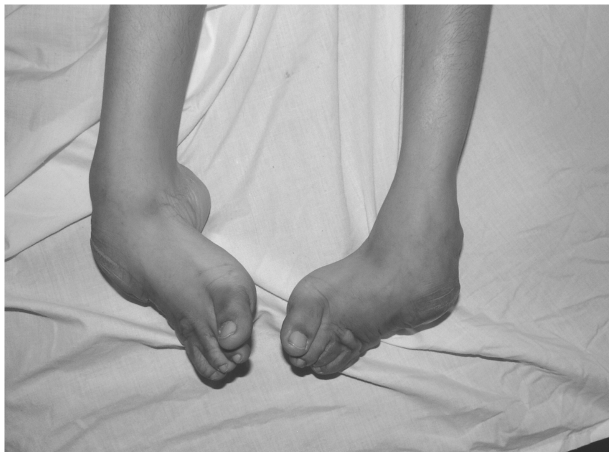

Figure 8. Bilateral neglected clubfoot.

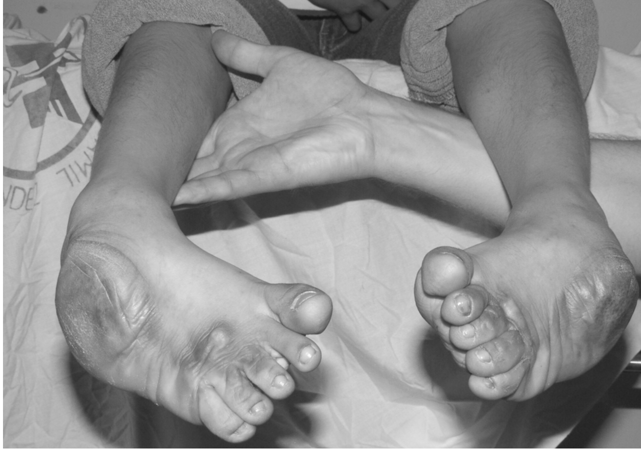

Figure 9. Bilateral adult neglected clubfoot.

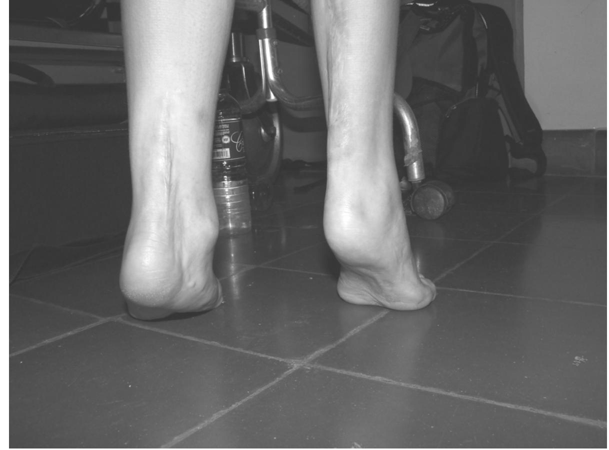

Figure 10. Severely contracted and scarred Achilles complex secondary to repeated surgeries.

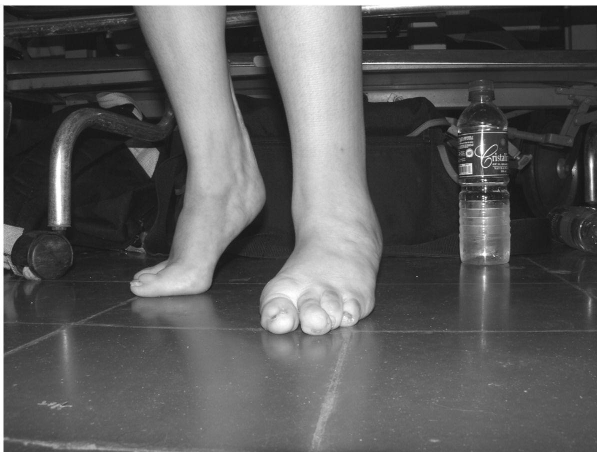

Figure 11. Contracted and scarred Achilles complex.