

POGO Travel Journal

Pediatric Spinal Deformity Trip to the Dominican Republic

Jaime A. Gomez MD¹; Shirvinda Wijesekera MD²; Andrew Moulton MD³

¹Montefiore/Albert Einstein College of Medicine, Bronx, NY; ²Yale New Haven Health, New Haven, CT;

³Joseph Spine Institute, Tampa, FL

February 9-16, 2020

Location: Hospital Salvador B. Gautier is a public hospital with minimal resources located in Santo Domingo, Dominican Republic.

Where did you stay? The group stayed at the Jaragua Hotel, which is outside of the city center for safety.

What are health concerns? Zika virus can be a concern for pregnant women. It is unsafe for travelers to drink local water due to GI contaminants.

What are things to bring? We advise our volunteers to bring plenty of sunscreen and mosquito deterrents. We carry a stocked pharmacy of GI medications and antihistamines. For surgeons, we all bring surgical loupes, our scrubs, and goniometers and wax markers to make measurements on the printed radiographs that patients bring with them.

How often have you traveled to this location? The Butterfly Foundation (Mariposa) started this mission 17 years ago, led by Andrew Moulton, MD. World Spine Outreach (WSO) partnered 12 years ago and has since taken over the logistics of this mission. The mission has been performed yearly ever since its inception.

What are the goals (education, service, other) of the trip? Our primary mission is to provide training in the management of spinal deformity for the orthopaedic

residents and spine fellows at Salvador Gautier Hospital. We teach surgeons, anesthesia, and OR staff to function more effectively. We demonstrate advanced surgical techniques that they may not be exposed to in their traditional residency programs. We also focus on universal technique with the nursing staff.

While this teaching endeavor is being performed, we help approximately 25 local pediatric patients with complex spinal deformity by performing spinal fusion and instrumentation that would otherwise not have access to this opportunity.

Who are your typical patients? Patients are low-income children or young adults that come from remote/rural areas in the Dominican Republic. Many of the patients have had untreated spinal deformities and wait a year to be seen to have their scoliosis evaluated and corrected.

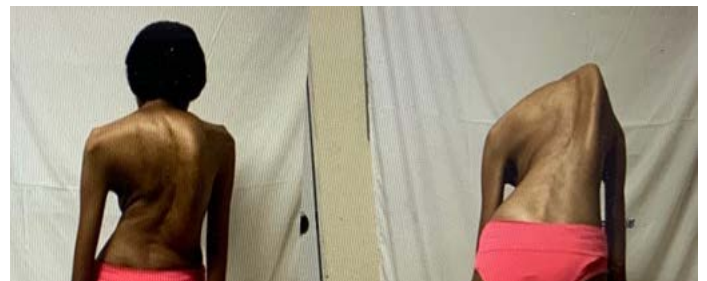
Who is on your team? Thirty-eight volunteers from multiple disciplines participate in the mission. These include six pediatric/spine surgeons, three residents, five anesthesia providers, two nurses, one PA, five scrub techs, five neuromonitoring techs, seven industry representatives, one translator, and three non-medical volunteers.



The mission group helps approximately 25 local pediatric patients with complex spinal deformity.

Who are your partners? WSO has donated medical/surgical supplies, DME and a cell saver machine with the disposables and have trained the local residents and nursing staff on how to use it. This allows them to continue using the technology when we are not present. To preserve local resources, the Butterfly Foundation brings all medical supplies possible to do 25-plus surgeries. In 2020, WSO contributed over 400 lbs. of medical supplies to the hospital, including instrumentation and biologics. What is not used in the surgeries is donated to the hospital for their use.

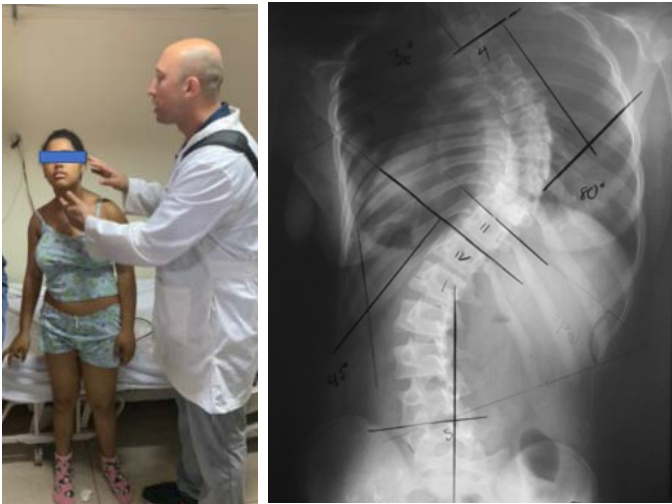
What support did you have from your host community? Over the last decade, we have established a very close relationship with our host community. They publicize and recruit potential patients for an entire year prior to the actual trip and set up patients for our team to screen on the Sunday before our operative week. It has become very streamlined over the years thanks to the Chief of Orthopedic Surgery, Fredis Reyes, MD. All of their residents and fellows have prepared the patients with appropriate tests/imaging and look forward to participating in the surgeries. Many of them speak some English, and many of our volunteers speak some



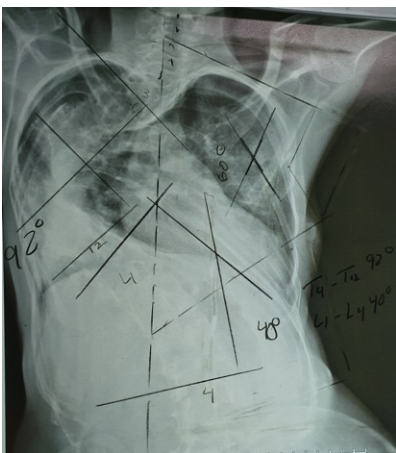
A patient with severe Kyphoscoliosis is seen in clinic. All patients get clinical pictures during evaluation.



Local residents and surgeons evaluate X-rays in the clinic day room.



At left, daily rounds seeing postop patients. At right, AP Spine X-ray of a case performed on the first day.



AP Spine X-ray of case performed midweek that required a VCR.

Spanish. They provide us with local anesthesia and students for training and nursing to keep the ORs running smoothly.

What follow-up is there after you leave? Patient follow-up care is

carried out by the local doctors and nurses. We are able to follow their outcomes every year.

Throughout the year, we constantly communicate with the team and Dr. Reyes. We offer advice and discuss follow-up on the most complex patients that are not routine.

Mission Travel Journal

Day 1: We arrived at the clinic at 7:20 am and screened approximately 60 patients in one room with anesthesia neuromonitoring and surgeons sharing the same area. It is hectic, but we got it done. After screening, surgeons and residents decide which cases are indicated and prepare a preliminary OR schedule for the week. This

year we had four operating rooms available to us, so we planned on doing four to five cases each day. After patients are chosen, we coordinate with local residents to arrange further diagnostic studies in some patients and to decide if we can operate on them during the week. Then we give a series of short talks translated in Spanish for the local residents, fellows, physical therapist, and some other health guests of the orthopaedic department.

Day 2-5: After breakfast at 7:00 am, the bus picks us up. We routinely get to the hospital at 8:00 am. Traffic is bad, and we use this time to go over case distribution and plan for each case of the day.

Once we arrive at the hospital, surgeons round on any postop patients, while all other staff goes to the OR to setup the patients for the day based on a daily schedule.

We have four OR rooms running every day, and the complexity of the cases is usually determined by the surgeons. We typically perform average cases the first day to warm up. Tuesday through Wednesday, we perform the hardest cases to give us time in case revisions or staged surgery need to be done. On Thursday and Friday, we start decreasing the complexity of the cases, bearing in mind that these are all high-risk deformity surgeries.

After returning from the hospital, we try to have dinner with the group, but a couple of days we elect to go to bed early due to tiredness and a knowledge of what comes the next day. On Friday, the hospital usually hosts a small dinner for the group. It is always a great time to interact socially with the local medical staff and to thank them for all their support.

What are five challenges you experienced during this trip and how did you deal with them? It has been many years of hard work to get to the relationship that we have established with this hospital. There are many challenges that we face and the top five may be:

1. Learn when to say no from a surgical standpoint.

This has been one of the hardest challenges. We realize that many times we are the only chance for these



This is an example of the operating room. Notice the X-rays on the window as we don't have light boxes.

patients. Yet, for some of these cases, the risk is too high to be performed under the conditions. We work very hard not to leave bad complications behind.

2. Anticipate needs. Over the years, we have a much better understanding of what the hospital and community needs from us, and we do our best to meet those needs. These are complex deformity surgeries, and unexpected needs are always present. The team improves the materials we have every year, but surgeons also learn to accommodate and work well with limited materials.

3. Language barrier. Do the best you can with translators. It's funny, though, how well people can understand each other without actual translation.

4. Train new volunteers. In general, all new volunteers do well with information and support. We always approach these missions as equal members of a team. We encourage open communication.

5. Raise funds. Fundraising can be a challenge. We primarily get funding through industry in the form of bone products, medical supplies and monetary donations. We always welcome any support to our mission trip (see contact info below).

Case or Tip of the Trip?

In this last mission, we had a young patient with a spinal ABC causing severe lower extremity weakness. She required biopsy, decompression, instrumentation, and lastly, a vertebral column resection for the management of her locally aggressive tumor. We worked diligently and were in constant communication with oncologists in the U.S. and even reviewed her pathology via electronic pictures to guide her diagnosis and treatment.

Tip: Using the resources we have in the U.S. remotely can help in the management of complex patients.

For group assistance or donations:

Jan Pichette (716) 597-6160
 Sarah Martineck (716) 870-7535
 Worldspineoutreach.com
worldspineoutreach@gmail.com