

The development of the American Society of Hematology Health Volunteers Overseas Hematology Program in Arequipa, Peru

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Project overview

The American Society of Hematology-Health Volunteers Overseas (ASH-HVO) hematology program in Peru was initiated in 2008 with EsSalud, the National Social Security Health Service, and included 4 hospitals (2 in Lima, 1 in Arequipa, and 1 in Cusco). Between 2009 and 2013, there were 14 volunteers, 8 of whom went to Arequipa. Due to administrative changes in EsSalud and failure to sign a new contract, the program was reluctantly discontinued.

After reevaluation, a new affiliation with the Hematology Division of the Carlos Seguin Escobedo Hospital (the referral hospital for the southern part of Peru) and Catholic University in Arequipa was established, and the Heme-Peru program was reopened in the spring of 2016.

Core project team members

Mariela Fuentes, Director of Hematology, Carlos Seguin Escobedo Hospital, Arequipa, Peru

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Mauricio Postigo MacDowall, Anatomic Pathology Service, Carlos Seguin Escobedo Hospital, Arequipa, Peru

Michael A. Linden, Associate Professor, Director of Hematopathology, University of Minnesota, Minneapolis, MN

Susan R. Harris, Associate Clinical Professor, Albert Einstein College of Medicine, Bronx, NY; Project Director, ASH-HVO Hematology Program, Arequipa, Peru

Volunteer enrollment

Since the program was reopened in 2016:

- 18 volunteers have been approved;
- 3 volunteers have had to withdraw because of work commitments but hope to participate at a later date;
- 7 volunteers will have participated by 1 September 2017;
- 3 volunteers are scheduled for the latter part of 2017;
- 3 volunteers will be completing fellowships in June 2018 and will be scheduled after then; and
- 2 volunteers are awaiting work assignments so they can arrange their dates.

About Arequipa

Arequipa is the second largest city (population, ~1 million) in Peru at an altitude of 2335 m (7661 ft) and is surrounded by volcanic mountains. It was designated a UNESCO World Heritage site in 2000. Arequipa is known as Ciudad Blanca because the buildings in the center are Andalusian (Spanish colonial) and made of sillar, a porous, white volcanic stone.

Local teaching program

A very active teaching program has been established for the attending staff, residents/fellows, and medical students that involves participation in rounds, review of peripheral smears, bone marrow



Carlos Seguin Escobedo Hospital-EsSalud.

aspirates, and biopsies, and daily lectures/conferences. Ongoing contact via e-mail and the Internet has permitted further sharing of articles, videos, etc.

Volunteers have given useful recommendations to improve the management of patients, and the lectures have allowed improvement in the diagnosis and management of many hematologic diseases. Hematology fellows and pathology residents have been able to grow in their fields, and both house staff and attending physicians have learned many practical aspects of clinical hematology.

Virtual hematologic malignancy conference

Beginning in March 2017, with assistance from the American Society of Hematology (ASH), we have been able to set up a monthly hematopathology teleconference, coordinated by Mauricio Postigo MacDowall in Arequipa and Michael Linden in Minnesota, to discuss difficult cases; these have included leukemic mantle cell lymphoma, splenic marginal lymphoma, small B-cell lymphoma with an unusual natural killer cell population in the peripheral blood and T-cell population in the bone marrow, and plasmablastic lymphoma.

For each case, a PowerPoint presentation is prepared that includes the patient's history, laboratory results, pictures of the



Arequipa's team during a virtual hematologic malignancy conference with ASH-HVO program members.

peripheral smear, bone marrow aspirate, bone marrow biopsy, additional relevant pathology, and excellent flow cytometry studies presented by Patricia Huamán Castro. Attending physicians from hematology and pathology are present with as many as 8 residents and fellows.

Future research

There are plans to access molecular diagnostic testing to augment diagnosis and facilitate research. Postigo MacDowall and team have collected 25 cases of Rosai-Dorfman disease as well as >80 cases of T-cell lymphomas, many of them associated with Epstein-Barr virus. The patient population in Arequipa has a unique incidence of rare diseases (in comparison with North America) that would benefit from further collaborative scientific investigation.

Partnerships with local and international hematology societies

Mauricio Postigo MacDowall has been awarded a Visitor Training Program grant from ASH and will be working with Michael Linden in Minnesota to further develop integrated hematopathology



El Misti volcano as seen from the hospital.



Peruvian Society of Hematology meeting with Laura Johnston, ASH-HVO volunteer.

diagnostic reports in Arequipa. In addition, the Arequipa chapter of the Peruvian Society of Hematology opened this year for the first time, partly motivated by the academic programs of the ASH-HVO volunteers.

Conflict-of-interest disclosure: M.F. declares no competing financial interests.

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