

## REPORT ON SUNY-ROTARY D.7150 BOLIVIA PROJECT, MARCH,2001 by Dr. Joseph Bearman

### Introduction

Bolivia, after Guayana, is the poorest country in South America with a terribly high childhood mortality. Dr. Joseph Bearman spent two exciting weeks working there in January,1999. Following a presentation of his experiences at Pediatric Grand rounds, he was encouraged to consider leading a medical school group by Dr. Gregory Eastwood and Dr Leonard Weiner, interim Chairman of the Department of Pediatrics.

The idea was to return to Montero, a city of 65,000 people in the province of Santa Cruz in Southeastern Bolivia where Dr. Bearman had worked previously. The Andean Rural Health Care, a non-for-profit agency, affiliated with the Methodist Church in North Carolina, runs two clinics in that city. In addition, Dr.Bearman, during his previous visit, had made the acquaintance of Dr. Charles Aspiazu, Professor of Pediatrics and a Pediatric Endocrinologist at the Christian University of Bolivia (UCEBOL). Dr. Aspiazu is the current president of the Grigota-Santa Cruz Rotary Club, a very active service organization in that city. The plan was to work with the doctor and the medical students in a variety of settings around Santa Cruz.

Medical care in Bolivia is divided along economic lines; like every aspect of life there are the 'haves and the havenots'. There are none of the safety nets for children living in poverty that fortunately exist for our disadvantaged children. Routine care for poor children does not exist, though there are immunization programs. Acute illnesses are neglected and children are only brought to care with advanced problems. Chronic problems are ignored and screening programs and early intervention unknown. The first hypothyroidism screening program in Bolivia is presently being introduced in the Province of Santa Cruz by Dr. Charles Aspiazu. In the absence of WIC-type programs and the presence of grinding poverty, childhood malnutrition is endemic.

Rotary International(RI), through it's International Volunteer Program, works with Rotary districts in areas like Bolivia to bring in and fund volunteers. The Rotary District in Central New York (D.7150) has an International Service Committee. Both RI and the Rotary Clubs of Oneida, Sherrill, Chittenango, Canastota, and Fayetteville-Manlius along with Dr.Eastwood's office and the Department of Pediatrics, provided the financial support for this project.

### Preparation

Selection of the team members: Dr.Ty Dickerson was recommended by the Department of Pediatrics to be the Resident member of the team. The project was given the status of an elective course at the Medical School and publicized via E-mail to all senior students. This generated a great deal of interest and an informational session and group interview was conducted. The six students who were present participated actively and following review of a brief essay, Anuj Dalal and Jason Zamkoff were selected.

Orientation process: A series of meetings were held in which there was language study, discussions of Bolivian geography, demographics, culture and history, organizational considerations, and general socialization. One of the highpoints was a presentation on Tropical Diseases by Joe Domechaske of the Pediatric I.D.Department.

Medical supplies and equipment collection and donation was a very important part of the undertaking and carried out entirely by Dr. Bearman. The Welch-Allyn corporation, Mohawk Medical Supplies, Upstate Homecare, Medical Center Pharmacy of Oneida were very generous in support of the project. Many drug representatives provided samples which were put to good use.

Application was made to the Andean Rural Health Care to participate as medical volunteers. Drs.Dickerson and Bearman were designated as Rotary International Volunteers and as such were given financial support. Five Rotary Clubs were visited and presentations made to generate financial support for the project. The Oneida Rotary Club, Dr. Bearman's club was particularly generous in its' support for the effort.

Through e-mail and telephone conversations with Dr.Aspiazu, plans were developed as how and where the team would be functioning. In January of this year, Dr. Bearman, while visiting South America, went to Santa Cruz to make sure that things were in place for the visit. He also visited the clinic sites in Montero run by the ARHC. Also to be taken care of were arrangements for a four day trip to visit La Paz and the Altiplano. Medical supplies were packed and personal belongings prepared and on February 28th the SUNY-Rotary Bolivia Team left Syracuse.

### Clinical Experience

#### I. March 1- March 14

a. Microhospital Tarumatu: This was a small clinic built by the Grigota Rotary Club in a rural, agricultural area less than 10 miles from the city of Santa Cruz. It was adjacent to a poor rural elementary school. The families were largely 'campesinos', either pure Guarany or mestizo. The children were either from subsistence farms or the children of workers on larger farms. Although the level of nutrition was relatively good, there were lots of severe infections and ignored chronic problems. Our work was aided by the presence of 15-20 medical students from UCEBOL. They helped by doing histories, weighing and measuring, manning the dispensary, and arranging for outside referrals. Also a number dressed as clowns and administered immunizations. We were able to see 125-150 children in a two day period.

b. UCEBOL Outpatient department: The clinic was at the medical school in an urban setting. The patients were lower class urban worker's families with some recent migrants from the poor western parts of the country around Potosi and Cochabamba. The nutritional level was fair. Again with the cooperation of the medical students we saw 400-450 patients in five working days.

c. Fundacion Nino Feliz (Happy Child Foundation): An international non-for-profit run with largely Belgian support, the foundation offers vocational training for indigent mothers and nutritional, educational, medical, and recreational programs for the children. The nutritional and medical condition of the children was better, but we still saw lots of illness among the 225-250 patients we saw in three days.

d. Proyecto Scolare de Soya - a school feeding program organized and funded by the Grigota Rotary Club in rural school districts in poor agricultural areas of the Province of Santa Cruz: I went with Dr. Aspiazu to a rural school in Porongo and assisted him while he instructed 30 mothers on the preparation of highly nutritious soy milk and soy patties to run a school nutrition program. His program donated 110 lbs. of soybeans which will feed the children in the local school lunch for 3 months

## II. Montero March 18-29

During these two weeks we worked at two clinic sites. Dr. Dickerson and Mr. Dalal worked at the Clinica Cruz Roja (Red Cross) and Dr. Bearman and Mr. Zamkoff worked at the Clinica Villa Cochabamba (CVC). Particularly at CVC, this was the poorest, most medically neglected and as a whole poorly nourished group of children. There were a lot of fairly recently arrived migrants from the West and there was much more social disruption than we had seen in other groups which had a devastating effect on nutritional levels. Supported by RNs, we were able to see 450-500 patients during that time. Of particular significance were the community home visits we were able to make. This put the problems of poverty, nutrition, poor sanitation, parasitism, and inadequate healthcare into a very real and stark context. We also made teaching rounds with Interns and Attendings at the childrens' hospital in Montero on most mornings during our stay.

## III. Clinical cases

The most commonly encountered problems:

- a. remarkably advanced skin infections including varieties of pyoderma, tinea corporis and capitis, and viceria larvae migrans cutaneous;
- b. marked malnutrition related to premature stoppage of nursing and the absence of inadequate supplemental foods after 6 months of age;
- c. the above gets horribly aggravated by intestinal parasitism and iron-deficiency anemia; the most common presentations for parasites were the passage of worms, diarrheas, or the frequently heard complaint 'no quiere comer' - 'he doesn't want to eat'; the most common parasites encountered: ascaris, giardia, entameba, oxyuris;
- d. very evolved deep infections such as empyema, septic arthritis, meningitis, Hansen's Disease and mastoiditis;
- e. ignored or inadequately treated congenital or chronic problems: Hurler's Syndrome, T-E fistula, Hypothyroidism, Down's Syndrome, Limb Dysplasias, Cleft lip and Palate, Brachial Palsy, Seizure Disorders.

## Conferences

The team participated in teaching conferences in Santa Cruz and Montero. At a UCEBOL conference Dr. Bearman spoke on the Management of Otitis Media in Spanish. Dr. Dickerson spoke in English translated on the Management of Unexplained High Fevers in Young Children. In Montero Dr. Bearman addressed the staff of the Children's Hospital on the management of Bronchial Asthma and their staff gave a pair of very interesting presentations on Neonatal Tetanus and Neonatal Chagas' Disease, conditions they have a lot of experience with. Dr. Bearman also made presentations to the ARHC staff on the Evaluation of Childhood Development and Bronchial Asthma. All these conferences were well received and created a great deal of good will.

## Social and Cultural Exchange

While in the city of Santa Cruz, the team members lived in the homes of members of the Grigota-Santa Cruz Rotary Club and seemed to profit from these experiences. The Team reciprocated by inviting the hosting families to dinner at a local restaurant. We attended meetings of Rotary Clubs in Santa Cruz and Montero. The Grigota Club was particularly forthcoming, inviting the team members to numerous weekend events.

The Team enjoyed their interactions with the UCEBOL students who, under the direction of Dr. Aspiazu, supported our efforts. We shared lunch with them on each of the working days and this was very rewarding. One medical student, Ana Luisa Ramalho, will be coming to University Hospital in July of this year to do an elective with the Department of Pediatrics. We hope that this will be the first of many exchanges which our program will generate.

Between March 14 and 18, we travelled to LaPaz, the Altiplano, and Lake Titicaca. While there in addition to visiting this extraordinarily beautiful, culturally, and historically rich area, we met with the Bolivian Director of the Andean Rural Health Care (ARHC) and visited one of their clinics on the Altiplano in the remote town of Ancoraimes. This trip was