

Medicine in the mud for Poor People's March



Resurrection City residents, still lacking water lines, wash clothes in cans.

Plagued by cold, rain, mud, sewage, trash, lack of water and angry non-black minority groups, Resurrection City has at least been spared one trouble—medical neglect.

The medical services available to 3,000 marchers of the Poor People's Campaign are one of the few reliable facts of life at the plastic and plywood camp in Washington's Potomac Park. They are as complete and efficient as several hundred medical volunteers can make them, in chaotic conditions.

The population of Resurrection City, led to Washington by the Southern Christian Leadership Conference to demonstrate for food and jobs, is continually changing with new arrivals and some returnees.

For free dental and medical care, a resident of Resurrection City has only to walk 50 yards outside the camp to a pair of health vans. Two volunteer doctors staff the medical van on each of four shifts around the clock. Resurrection City runs through 56 physicians a week. A third van, inside the camp, is run by Seventh-Day Adventists.

If necessary, the resident can be sent to one of several hospitals in Washington that have agreed to take the marchers. D.C. General Hospital has so far treated 100 people, most of them with stomach trouble or toothaches. Freedmen's Hospital has treated about the same number. Only 13 marchers have stayed for in-patient treatment, including a pneumonia case and a birth.

In the evening, six to midnight, a

resident may seek out one of two psychiatrists, also volunteers, who maintain a clinic at Resurrection City seven nights a week. No shelter for the clinic has yet been built. "We've been interviewing people out on the grass and in any little nook or cranny we can find," says Dr. Robert Abramovitz, a coordinator of the mental health committee for Resurrection City.

The D.C. Health Department, meanwhile, provides immunizations, chest X-rays, skin and blood tests. Some 200 people have been immunized against measles, diphtheria, whooping cough, tetanus and polio.

People in Resurrection City are probably receiving better medical care than the average person in Washington, says Dr. Arthur Frank, co-chairman of the local chapter of the Medical Committee for Human Rights, one of the groups volunteering service to the SCLC's medical committee. "It's right on the spot and there is no cost."

Certainly, the marchers receive better medical care than most have had at home. Their previous care, explains Dr. Frank, was "incomplete . . . relatively nonexistent."

Medical screening has turned up a fair amount of pathology, "from hemorrhoids to heart disease," says Dr. Frank. The first 119 chest X-rays on the marchers indicate a higher-than-normal rate of pathology—about 10 percent—frequently enlarged hearts, suggesting chronic cardiac trouble, and old lung scars. So far, however, no

active tuberculosis has been found.

Medical people are also finding malnutrition among the residents, but no figures are available to indicate how many people suffer from it. One aim of the campaign is to force a change in the Government's food programs, to get more food to the poor. An estimated 10 million people in the United States suffer hunger or malnutrition.

At the campsite, medical service from dentistry to psychiatry is designed to offer rapid, convenient diagnosis and simple treatment. Psychiatrists, for instance, have been dispensing mild relaxants against anxiety and sleeplessness due to the stresses of long travel.

Many of the people who come for help—and there are not many—are reacting to dislocation, says Psychiatrist Abramovitz. "There has been no really serious stuff." He points out that, normally, people living under the overcrowded and weather-desolated conditions of Resurrection City could be expected to have psychiatric problems. But the camp has a social system, including a city hall, manager and community meetings, as well as a unifying purpose.

"It has the aura of a temporary engagement. If someone can't manage, he can always go back home," says Dr. Abramovitz. The context is quite different from that of an urban ghetto, which lacks both escape hatch and purpose. "Here the motivation and determination to be involved is going to help sustain people."

But trouble has arisen among ethnic groups. Indian Americans, recently arrived from the Southwest, have declined to enter Resurrection City. Mexican-American leader Reies Lopez Tijerina has accused the predominantly black city of humiliating and discriminating against others. But a quick meeting between officials of SCLC and Tijerina appeared to mend some rifts.

Black exclusiveness troubles Resurrection City in other ways as well. The SCLC wants the health vans located inside the camp. But the D.C. Health Department will not allow it unless health employes are allowed direct access to the medical area. Employes have had trouble getting into the city; camp marshalls have barred them.

HORMONE SYNTHESIZED

Calcium controller heals bones

By the time astronauts take off on long-term space flights their problems of calcium balance caused by weightlessness may be solved by a new thyroid hormone being synthesized on both sides of the Atlantic. Meanwhile, the substance offers hope to earth-bound sufferers of bone disease. The synthetic

is already being used in experimental treatment of patients with softening of the bones such as in osteoporosis.

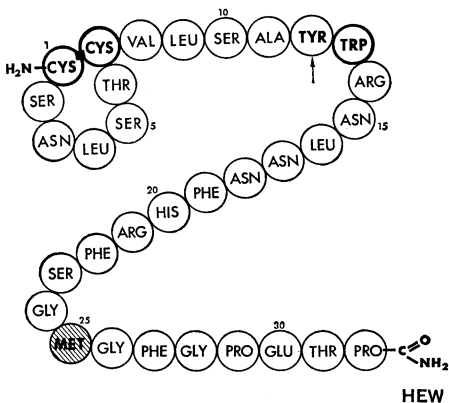
Small amounts of the highly purified hormone thyrocalcitonin have maintained normal blood calcium levels for five months in a patient with widespread parathyroid gland cancer. His damaged bones have healed under treatment at the Clinical Center of the National Institutes of Health at Bethesda, Md.

To produce one pound of natural calcitonin would require the thyroid glands of 60 million pigs, and would cost \$20 million. Chemical synthesis will be much cheaper.

The hormone was synthesized by two Swiss pharmaceutical companies—Sandoz and Ciba—and by Lederle in Pearl River, N.Y.

Studies at the National Heart Institute that led to isolation of the pure hormone also characterized the protein nature of the substance, reports Dr. John T. Potts Jr. of the institute's laboratory of molecular diseases.

He told the International Symposium on Protein and Polypeptide Hormones in Liege, Belgium, that he and



Amino acid sequence of calcitonin.

his team found the hormone was a peptide consisting of 32 amino acids, arranged in a single polypeptide chain with a large loop at the end.

Now that laboratory synthesis of the hormone has been accomplished, ultimate proof of the correct structure is provided. The scientists not only provided the first chemical definition of the hormone's structure, but developed a method of measuring the minute amounts of hormone circulating in the blood—less than one ten-millionth of an ounce per pint.

TRANSPLANT

Rejection antigen found

Hope for overcoming the rejection problem in transplanted organs has been raised by two scientists from the National Institutes of Health, who have

isolated a human transplantation antigen during research in Turin, Italy.

Working with Prof. Ruggero Cappelini, who directs an Italian institute of medical genetics, Drs. Barry Kahan and Ralph Reisfeld of the National Institute of Allergy and Infectious Diseases in Bethesda, Md., have tested what they believe is one of the important transplantation antigens in man. The antigen is a protein that arouses an immune response.

They had previously worked with inbred strains of guinea pigs from which they isolated their antigen. They expect to do a great deal more research with animal models before applying the isolated chemical in any widespread fashion to humans.

In their six-week stay in Turin, they tested its activity on six volunteers from whom spleens had been removed for medical reasons. They made a dilute solution of spleen lymphocytes, a type of white blood cells, then treated it with ultrasound to dislodge the antigen from the cell surface.

Next they concentrated the fluid and separated it into various proteins. By sensitivity testing on the volunteers, they identified one protein fraction as the important one.

Dr. Reisfeld believes that further experimentation will prove that with use of the antigen transplants can be retained, and at the same time the recipient will not lay himself open to infection.

Dr. Reisfeld explains that they are trying to "achieve a low dosage range of tolerance for getting a person's system accustomed to the antigen" so that if he receives a transplant from another person he will not slough off. The experimenters have been giving their antigen in small amounts repeatedly to the Italian volunteers, but they are not planning further human tests at present.

Tissue compatibility is under genetic control, and the NIH researchers are interested in putting transplantation on a definite chemical and genetic basis.

Dr. James V. Neel, chairman of the department of human genetics, University of Michigan, says that the quest for understanding of transplantation antigens is widespread, and that the NIH work "may be a great step to practical use in cardiac transplants."

Meanwhile the number of heart transplants had risen to 17 as of May 26. On Saturday night, May 25, Dr. Richard R. Lower (SN: 1/20, p. 59) with Dr. David M. Hume of the Medical College of Virginia, Richmond, performed the 16th heart transplant. The next day in São Paulo, Brazil, a team headed by Dr. Euryclides de Jesus Serbini of the Hospital das Clinicas, performed the 17th, the first in Latin America.

FAULTY RECORDER

Optical pulsar questioned

Pulsars have been a puzzle since their discovery; each bit of data that has accumulated on them has deepened their mystery—especially the apparent ability of at least one to send out pulses of visible light as well as radio waves (SN: 6/1, p. 519).

But now astronomers have to wonder if the light pulses exist after all. The variations in light output were observed at two institutions—and now one of them admits that its data result, not from the pulsar's activity in the heavens, but from a faulty tape recorder on earth.

Astronomers using the 120-inch telescope at Lick Observatory at first had thought they had confirmation of the optical variations found at Kitt Peak National Observatory. But last week they traced them to spurious electronic signals introduced by Lick's equipment.

Dr. David Cudaback of the University of California at Berkeley, who leads the Lick team, says he will be spending his time until mid-June trying to improve the tape recording system to eliminate the error and prepare for another try.

After the Memorial Day weekend, mid-June will be the earliest opportunity for making new observations of Pulsar One, since moonlight will mask the faint signals—if there are any—until then.

Dr. Jerome Christian of Mt. Wilson and Palomar Observatories says there is a good possibility that the data taken with the 200-inch Hale telescope, which so far has not shown any fluctuations, will be reanalyzed using the same computer on which the Lick data were reduced. This will not happen, however, until after Dr. Cudaback and his co-workers have corrected the recording problem.

Some of the scientists whose theories concerning the remarkable regularity of the pulsar's radio emissions cannot be altered to take in optical variations are now even more hopeful that the identification of the object is wrong or that the reported light pulses are not real.

Even though the astronomers at Kitt Peak have confirmed their own observations of the optical pulses with the 84-inch telescope, few scientists will be convinced of the reality of the light variations until there is confirmation from another observatory.

Among those who adopted a wait and see attitude even before the Lick confirmation was retracted is Dr. Geoffrey Burbidge, now a visiting astrophysicist at Harvard College Observatory. However, he notes that if the light