

MEDICINE

Drugs Conquer Fungus

A new antifungal agent has brought relief from itching and burning to hundreds suffering from such superficial fungus infections as ringworm and athlete's foot.

► **FUNGUS INFECTIONS**, like those causing ringworm and athlete's foot, may be on their way out as a threat to human well-being, studies on a new antifungal agent indicate.

The agent, called tolnaftate, has been found to achieve "complete curing or definite control of infection" in 320 of 520 cases of superficial fungus infections. The cases, examined in 19 independent clinical investigations, included infections of the feet, groin, body, head, hands and nails.

Dr. John A. Leer of the Schering Corporation, Bloomfield, N.J., reported these findings to the Fourth Interscience Conference on Antimicrobial Agents and Chemotherapy in New York, sponsored by the American Society of Microbiology.

Dr. Leer said tolnaftate was applied to areas of infection twice or three times daily, usually for two to four weeks. The infections in persons tested had been present from three days to 30 years.

Results of the various studies showed that itching and burning were usually relieved within 24 hours after the start of treatment with the preparation. One fungus infection in particular, athlete's foot, was usually cured after two weeks of treatment with tolnaftate.

At the same meeting two scientists reported that a second drug, thiabendazole, had been found effective in laboratory tests against athlete's foot fungus. Thiabendazole at present is widely known for its veterinary use in preventing parasitic worm infections in sheep.

Drs. Lloyd J. Sorensen and Harry J. Robinson, both of Merck Institute for Therapeutic Research, Rahway, N.J., reported that the drug cleared up infections immediately in guinea pigs experimentally given the fungus that causes athlete's foot.

The scientists said infections with the athlete's foot fungus were induced into the skin of shaven guinea pigs.

Each day, new hair growth was taken from the infected areas and examined for fungal activity.

When the drug was applied in a four percent ointment four days after the infection was introduced to the pigs, the fungus disappeared in less than one day, the scientists reported.

Lower concentrations of the ointment were found not as effective as the four percent dosage. A delay in treatment also gave less effective results in that 12 days were required before infections cleared up.

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PUBLIC HEALTH

Defects Cause Guilt Sense

► **A MISTAKEN SENSE** of guilt still exists among many parents today who blame themselves for their defective children, Basil O'Connor, president of the National Foundation-March of Dimes said in Washington.

Parents still believe that some external cause such as a fright during pregnancy is the reason an abnormal child is born. Or they think they must have sinned in some way.

The word "harelip" got its name from its resemblance to a rabbit's mouth, and the mother of a child with this deformity was believed to have looked at a rabbit while pregnant.

With 250,000 children born with birth defects each year and 30,000 annual deaths from such causes, public education is gradually erasing the guilt feelings that have often kept abnormal children hidden away in attics.

Until research makes more progress in the prevention of birth defects, treatment can make them less tragic. The National Foundation is sponsoring 50 treatment centers for abnormal children. In one, as many as a dozen specialists treat the many problems common to birth defects. Otherwise,

a child might have to be shuttled between medical experts scattered throughout a city or even an entire state.

Three of these centers, in Madison, Wisc., Boston and New Orleans, are particularly following up the earliest birth defects to be discovered, even minor ones.

Outstanding among the achievements in overcoming birth defects are the blood test for phenylketonuria, or PKU, which enables the child to be put on a special diet to avoid severe mental retardation, and that for galactosemia, which causes blindness as well as retardation, if not discovered shortly after birth.

Hydrocephalus, or water on the brain, can be treated by draining fluid so the head size becomes more normal.

The new Salk Institute for Biological Studies at San Diego, under the leadership of Dr. Jonas Salk, who developed the polio vaccine, is expected to probe into some of the basic problems behind birth defects, Mr. O'Connor told SCIENCE SERVICE. The institute will not work on any one disease, but in fields of microbiology, genetics and enzymes that could lead to specific practical results.

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Armed Forces Institute of Pathology

PENGUIN AUDIENCE—Carl Ek-lund, a biologist from Atlanta, Ga., moves an antenna into position at McMurdo Sound as penguins watch.

PSYCHOLOGY

Work Cures Boredom on South Pole Navy Base

► **WORK KEEPS UP** the morale of the Navy and civilian personnel confined with the same group of men for six to 12 months at the South Pole.

The individual's ability to control his emotions, as well as his consideration and friendliness to his fellow workmen are also important, Lt. Paul D. Nelson of the U.S. Navy Medical Neuropsychiatric Research Unit, San Diego, Calif., reported to the meeting of the Association of Military Surgeons of the U.S. in Washington, D.C.

McMurdo Base, the largest of the research stations on the Antarctic Continent, is composed of about 200 men. Smaller outlying stations, Byrd, Hallett and Eighties, vary in size from 12 to 35 men.

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BIOPHYSICS

Sound Waves Locate Tumors in Eye Socket

► **SOUND WAVES** are four times more sensitive than X-rays in locating tumors within the eye's orbit, or socket, a New York ophthalmologist reported in Chicago.

Diagnosis of an orbital tumor proved accurate in 32 of 54 cases examined by ultrasonography. This was later confirmed by surgery and medical tests, Dr. Gilbert Baum of the Albert Einstein College of Medicine of Yeshiva University, N.Y., said.

Dr. Baum's study was reported at the meeting of the American Academy of Ophthalmology and Otolaryngology. The study was supported by a National Cancer Institute grant.

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