

CHEMISTRY

Terramycin for Jaundice

► TERRAMYCIN, the earth mold chemical remedy, may turn out to be a cure for a jaundice disease which kills about 30 out of every 100 patients.

The disease is known as Weil's disease, or leptospiral jaundice or leptospirosis. The germ causing it is a leptospira. Until recently there has been no effective treatment for it and doctors have been finding it much commoner in the United States than they had supposed.

A patient who was critically ill with this disease and got worse in spite of penicillin treatment showed "dramatic improvement"

within 24 hours after terramycin was started, Drs. Daniel Liebowitz and Harold Schwartz of Cleveland report in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Sept. 8).

The patient was jaundiced, had uremic poisoning because his kidneys were affected, and appeared to be dying. Although one case is not enough on which to draw definite conclusions, the Cleveland doctors point out, they think the "pronounced sudden improvement" after terramycin was started seems more than a coincidence.

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Chemical "Missing Link"

► A CHEMICAL "missing link" joining animal and plant life at the very beginning of evolution a couple of billion years ago was suggested to the American Chemical Society meeting in New York by Dr. S.

Granick of the Rockefeller Institute for Medical Research, New York.

A substance that gives rise to both the hemoglobin of red blood and the chlorophyll of green plants has been discovered by Dr. Granick in special strains of the one-celled simple plant *Chlorella*. It is a pigment called protoporphyrin isomer 9. The two prominent pigments of protoplasm, the substance of living matter, are the red iron-containing porphyrins such as present in blood and the green magnesium-containing porphyrins such as chlorophylls that capture the solar energy and convert it into food in plants.

From the protoporphyrin, considered the great-ever-so-great chemical grandparent, the red and green pigments of animals and plants evolved by the insertion of iron into this chemical to form the heme pigments and the insertion of magnesium to form chlorophyll.

There also evolved, in Dr. Granick's conception, the catalysts in protoplasm that take part in the decomposition and formation of water, which are fundamental life processes. These functions were present in the early beginnings of protoplasmic processes and became specialized and effective as the animals and plants evolved during the long millenia of the rise of life upon the earth.

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exposure of the parents already exists in this country. This population consists of the physicians, laboratory aides and others who are constantly exposed to radiation through their work in X-ray or radium treatments.

A survey by questionnaire of some 4,000 of these persons will be made by Dr. Stanley H. Macht of the Washington County Hospital, Hagerstown, Md., under a grant from the National Institutes of Health.

Besides surveying the 4,000 radiologists, Dr. Macht will survey through identical questionnaires 4,000 physicians who do not come in contact with radiation of any type. Questions to be asked cover not only what defects if any have developed among the children but also what effects radiation may have had on childbearing including sterility, stillbirths and the like.

Results of the survey may not give complete answers on what the results of atomic bombing are, because of differences in the amounts of radiation exposure. But they are expected to show whether current methods for protecting workers in radiological laboratories really do protect.

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SURGERY

Nailing Arm to Shoulder Helps Paralysis Victims

► NAILING AN arm to the shoulder helps paralysis victims get more use from the arm, Dr. Garrett Pipkin of Kansas City, Mo., reported to the U. S. Chapter of the International College of Surgeons meeting in Chicago.

One 12-year-old polio victim with an almost useless right arm now can put his hand in his pocket, bring his elbow to his side and throw a baseball overhand, thanks to the nailing operation.

Altogether Dr. Pipkin has performed the operation on six patients. It has been successful in five and the sixth is progressing satisfactorily, although it is too early to know what the final result will be.

In the operation the upper arm bone is connected to the shoulder blade by a "K" nail, which gets its name from Dr. Kuntscher, the German physician who developed it. The nail ranges in length from nine and one-half to 12 inches and is driven down through the shoulder blade and arm bone to a point near the elbow.

Heretofore fusing the shoulder to the arm has involved four to six months, usually in a plaster cast. By using the nail, the cast can usually be discarded as soon as the surgical scar matures, generally in three weeks.

Besides the advantage in comfort to the patient, the nailing technique and short time in a cast avoids further wasting of muscles already below par due to polio. The nailing operation can be done on a child as young as six. As a result, growth is stimulated and serious shortening of the arm prevented.

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GENETICS

Radiologists' Children Studied for A-Bomb Hints

► EFFECTS OF atomic bombing on children and grandchildren of survivors may be learned before long from a study of persons living here in the United States.

A human population of several thousand persons whose offspring might show hereditary defects or abnormalities for radiation