

MEDICINE

Chemicals Aid Surgical TB

SK and SD, aiding wounded in Korea, are helping to treat home tuberculous patients. The two chemicals liquefy blood clots in chest.

➤ SK AND SD, two chemicals which can help our wounded in Korea, are giving civilian doctors, a more satisfactory way of treating some tuberculosis patients at home.

SK is short for streptokinase. SD is short for streptodornase. Both are obtained from the growth of certain varieties of hemolytic streptococcus germs, best known to the layman as the cause of strep sore throats and other ailments.

Good results in use of these chemicals to treat tuberculosis patients were reported by Drs. Joseph M. Miller, Perrin H. Long and Edward S. Stafford of the Johns Hopkins Medical School and Hospital, Baltimore, at the meeting of the American Medical Association in Atlantic City, N. J.

Dr. Miller is chief of the surgical service at the Veterans Administration Hospital, Fort Howard, Md.

In the Korean action these chemicals may be used for men with chest wounds. SK and SD liquefy blood clots in the chest following such wounds so that the blood can be sucked out. This lets the lungs re-expand. During World War II many wounded men required operations for this condition. But in the Korean action,

the Baltimore doctors stated, fewer operations should be necessary through the use of SK and SD.

The 19 tuberculosis patients for whom the chemicals were used by the Baltimore doctors did not have tuberculosis of the lungs, they emphasized. These 19 had so-called surgical tuberculosis. Four had tuberculosis empyema, five had tuberculous glands in the neck, and the others had tuberculosis of the spine, bones and joints. In 14 cases the disease was severe.

SK and SD were used in these patients as aids to surgical drainage treatment. In 16 the infection has been controlled and all wounds and sinuses have healed. The other three had far advanced, progressive tuberculosis. The local conditions improved, but the general disease progressed and the patients died.

The swift healing of tuberculous abscesses that comes from surgical drainage combined with use of SK and SD gives a "more satisfactory way" of treating these conditions than older, conservative methods, the doctors stated. SK and SD are aids to, but do not substitute for, the usual surgical measures for caring for infected

wounds. They have only two actions: 1. Liquefying the fibrin of the blood clot. 2. Dissolving desoxyribose nucleoprotein. Removal of these two substances from wound surfaces, however, enhances healing and permits white blood cells and antibiotic drugs such as penicillin to get directly at the germs in the wounds.

The action of SK and SD was reported by Dr. William S. Tillett in 1934. They are now available in pure form in quantity and can be stored for long periods in the dry form at freezing temperatures. Harmful, or toxic, effects from putting them on external wounds have so far not been reported. They are used in solution or ointment form. Lederle Laboratories now markets them under the trade name, Vari-dase.

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AERONAUTICS

More Power in New Jet Than Most Fighter Planes

➤ THE SOVIETS may have the best jet engine actually in use in fighter planes, as recently stated by a U. S. Air Force officer, but several improved American turbo-jets have passed the experimental stage of development and will be ready for installations soon. Among them is a new turbo-jet revealed by General Electric Company of Schenectady, N. Y.

This engine is far more powerful than the company's present battle-tested J-47 which is used in several American planes including the record-holding North American F-86 Sabre fighter and the world's fastest bomber, the six-jet Boeing B-47 Stratojet. Details of its power are not revealed but it is far in excess of the 5,200-pound thrust of the present J-47. It can be used as a replacement for G.E. present turbo-jets because it has the same frame size.

The new jet engine is designated the J-47-GE-21 and is the first of the company's "Advanced J-47" series to be announced. It has a low rate of fuel consumption and is an all-weather engine with anti-icing features and high-altitude starting characteristics. It is equipped for either water or alcohol injection or after-burning to give added thrust for short periods.

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METEOROLOGY

Coast Resorts Can Expect Near Normal Temperatures

➤ SEASHORE VISITORS, no matter in what part of the country, can expect the normal weather along the coasts until the middle of July. But back a distance from the coast it will be hotter than expected.

This is the way the Extended Forecast Section of the U. S. Weather Bureau puts it: "Above normal in the interior of states bordering the Pacific, Atlantic and Gulf of Mexico."

Science News Letter, June 23, 1951



MILITARY JET—Latest turbojet engine, made by General Electric Company and designated the J-47-GE-21, is here being inspected by R. O. Miller. It is the same size as the company's present battle-tested jets, but more powerful with a thrust rating far in excess of 5,200 pounds.