

medical sciences

BLOOD CLOTS

Enzyme breaks up long-standing occlusions

The enzyme streptokinase has been successful in breaking up arterial blood clots in the thigh, but it is generally believed that it is not effective in treating clots that are more than five days old.

From the Medical School of Hannover, West Germany, however, comes a report indicating that this treatment can be helpful with patients who have laminating occlusions in these arteries for several months.

Seventeen of 27 men and women ranging in age from 36 to 77 years old were helped to walk without pain during treatment. X-rays had shown complete obstruction of the left pelvic artery in some cases, and many patients whose legs had been cool and numb because of the clot found an improvement. Some of them reported an increase in the distance they could walk without limping or pain from 50 to 1,500 yards.

Another study is reported in the *BRITISH MEDICAL JOURNAL* of March 29 in which streptokinase was used alternately with heparin and Arvin on 30 patients with deep vein thrombosis. Streptokinase was more effective than either of the other two drugs. The researchers worked at King's College Hospital Medical School in London.

INDUSTRIAL WORKERS

Soviets report poison risks

Soviet scientists report three different poison risks to industrial workers employed in various factories.

Cadmium poisoning occurred in 12 of 21 workers in factories where cadmium stearate is produced or processed as an additive to artificial leather and other materials. The Soviet scientist, L. P. Sabalina, found early signs of heart, throat and lung changes in workers of two-year experience.

In another study, by E. A. Kapkaev and V. A. Suhanova, workers with four to five years of experience in the production of synthetic rubber from alpha-methyl styrene have chronic poisoning. This takes the form of nervous system disturbance, temporary moderate leukemia and other blood disorders. Animal experiments showed that the toxicity of alpha-methyl styrene increased with the surrounding temperature.

The third report, by A. K. Sgibnev, was on the effect of formaldehyde vapors, which are causing upper respiratory irritation and skin reactions. The researcher recommends lowering the existing admissible concentration in Russian industry.

RUBELLA

Vaccine used on nonpregnant women

The preference seems to be for immunizing children against rubella before puberty if possible. But adult women who are not pregnant are candidates for vaccination.

The March 27 *NEW ENGLAND JOURNAL OF MEDICINE* carries a report from the University of Pennsylvania and the Merck Institute for Therapeutic Research on the successful vaccination of 34 women who were

known to be on a suitable pregnancy control regimen.

Thirty-five women were vaccinated; all but one of them showed signs of rubella antibody.

Approval of rubella vaccine is expected in May.

SEX PREDICTION

Determining prenatal sex

A physician can now determine a baby's sex six months before it is born, using improved laboratory techniques.

Dr. Robert B. Sloves, a University of Southern California instructor in obstetrics and gynecology, working with a colleague, Sue Oliphant, scored correct predictions in 66 cases at the Los Angeles County-USC Medical Center. The test, which is an improvement over one devised previously by other researchers, takes a minimum of six hours to complete.

Fluid samples are taken from the sac holding the fetus, and in the case of twins, from each sac. The researchers say that the tests are made to determine the need for corrective treatment in sex-linked diseases. The treatment can be administered to the unborn child or immediately after birth.

GALLSTONES

Lecithin treatment promising

Surgery is the standard treatment for illness resulting from gallstones, but the search for a less drastic way of controlling them is beginning to show promise.

Although the cause of gallstone formation is still not clear, physicians believe that they arise when the bile produced by the gallbladder does not keep the cholesterol in the blood in solution, so that it forms stones.

Recent studies, report Drs. Robert M. Zollinger and Ronald K. Tompkins of the Ohio State University College of Medicine, show that lecithin, a component of bile that helps dissolve cholesterol, is lower than normal in patients who have had gallstones.

Other studies, they report in the *MARCH POSTGRADUATE MEDICINE*, show that feeding patients soybean lecithin increases the lecithin level in the bile and dissolves more cholesterol.

The ultimate aim, they say, is to learn if soybean lecithin will dissolve existing stones and prevent new ones from forming.

DOSAGE

British medicine goes metric

After two years of girding up their loins, British drug manufacturers and druggists are now using metric-sized medicine bottles and pills.

Doctors are also having to prescribe medicine in metric measure. And with every bottle of liquid medicine prescribed under the National Health Service a free 5-milliliter plastic spoon is dispensed, to replace the 70 different sizes of teaspoons in use up to now.

Although U.S. drug manufacturers have used the metric system since 1880, liquid doses are still prescribed on the teaspoon basis.

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