MEDICINE

Test Detects Arthritis

➤ A TEST for detecting rheumatoid arthritis in its earliest stages has been found. Researchers have discovered that the red blood cells of rheumatoid arthritis patients are coated with a glue-like protein substance that can be detected before clinical signs of the disease show up.

The substance is believed to be the same "rheumatoid factor" protein, which, until now, has been found only in the serum and true globulin fractions of the blood. Perhaps one reason the substance has not been found in this location before is that it sticks to the blood cells very tightly.

It cannot be washed off with saline solution, but it can be removed with polysaccharide dextran. With the extraction technique, technicians can now detect the coating protein not only before clinical symptoms appear, but also before the protein shows up in the serum and globulin fractions.

The new test, known as the dextran-cell latex-fixation test, shows that 99% to 100% of rheumatoid arthritis patients have the blood cell coating. The factor also is present in some patients with non-rheumatic diseases, such as hemolytic anemia and glomerulonephritis, and the test may prove useful in diagnosing these conditions.

For some time it has been known that red cells in rheumatoid arthritis patients stick together and slow down blood flow. The researchers now believe the clumping comes about when the protein coating reacts with the patient's own gamma globulin.

The research is reported in The New England Journal of Medicine, 264:270, 1961. The investigators include Dr. Abraham E. Finkelstein, of the Arthritis and Rheumatism Foundation, the Robert B. Brigham Hospital and the Peter Bent Brigham Hospital, Boston; Gregory Kwok of the Robert B. Brigham Hospital; and Drs. Arthur P. Hall and Theodore B. Bayles, both of the Harvard Medical School and associated with the two hospitals.

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SOCIOLOGY

Social Growth Natural

➤ GROWN-UPS who force a child to be sociable are likely to "teach the child to become a lonely member of a lonely crowd."

Pressure of adults on children will not promote social growth, Dr. Robert W. White of Harvard University has found.

Children develop social interests when they are ready for it. Much social growth comes from reading books or from strong interests or hobbies, he reports.

Dr. White urges adults to forget "the pat formula of social adjustment" that has "obsessed" grown-ups. "Economic and social trends on the one hand and psychiatric insights on the other have intimidated us and robbed us of common sense about social growth," he states.

Children should learn to enjoy being with others and take pleasure in companionship. This is accomplished most easily when a child has a "real interest" in other children and has a personal stake in improving a social situation.

This provides a push from within that helps give a child an insight into the rights of others. This push is an essential aspect of a child's social growth, Dr. White said.

That this push will develop by itself without pressure from adults is seen from the strong social appetites children exhibit, Dr. White reports in the Teachers College Record, professional journal of Teachers College, Columbia University, N. Y.

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GERIATRICS

No Fountain of Youth

➤ PROCAINE, the local anesthetic known by its trade name Novocain, has been refuted as the "fountain of youth."

Sensational claims for rejuvenation and improvement in a wide variety of diseases associated with old age have no foundation, Dr. G. C. Chiu of Eli Lilly and Co., Indianapolis, charges in the Journal of the American Medical Association, 175:503, 1961.

Afflictions for which procaine has been recommended include senility, loss of memory, deficient hearing and vision, impotence, hair loss, eczema, heart and circulatory reactions to stress, Parkinson's disease, hardening of the arteries, arthritis, peptic ulcer, asthma and high blood pressure, Dr. Chiu reports.

Since 1956, Dr. Chiu states, Prof. Anna Aslan and her associates of the C. I. Parhon Institute of Geriatrics, Bucharest, Romania, have claimed that procaine had a rejuvenating effect on elderly persons.

"Procaine and its components have been extensively studied," Dr. Chiu said, "and there is no evidence to support the claims of Prof. Aslan for a rejuvenating effect."

Although Prof. Aslan reported in 1960 that more than 20,000 patients had been treated with procaine since 1951, Dr. Chiu says the techniques required for valid conclusions, such as control series or statistical analysis, were not used in conjunction with the treatment.

The treatment, he explains, consists of a series of intramuscular injections of a solution of procaine hydrochloride. Analysis of the data contained in the published reports on procaine showed the agent produced no curative effect on the underlying disease, he says. Its palliative effect was transient, lasting no more than 60 minutes following administration.

In a recent United States study in which 10 elderly patients with degenerative diseases were treated with procaine injections for up to 15 months, Dr. Chiu says, only two showed any improvement, and careful analysis indicated that procaine was not responsible.

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PUBLIC HEALTH

Work Absences Caused By Menstrual Pain

➤ WORK ABSENCES of women because of menstruation pains account only for a few percent of their total time off in Sweden. Of 890 women interviewed concerning absences during a five-year period, nearly 40% suffered from menstruation pains.

However, only 3.7% of the total absence frequency among women working in factories and 2.5% among office workers were caused by menstruation pains.

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FOR SPACE BOOST—A cross section of a 14-foot diameter rocket motor that would total 63 feet in length. The solid propellant motor is under study for the National Aeronautics and Space Administration at the Thiokol Chemical Corporation, Trenton, N. J. Seven full size motors could power the first stage of space vehicles.