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INVESTIGATIONS INTO A SIMPLIFIED MODIFICATION OF THE  
IMMUNOFLOUORESCENCE TEST FOR TREPONEMES (IFTT)

Przegl. dermatologiczny,  
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As the studies of WAISMAN and HAMELIN, BOREL, FRIBOURG-BLANC and NIEL showed, the immunofluorescence test for treponemes (IFTT), described by DEACON in 1957, is characterized by a high specificity and sensitivity. Many American and European workers introduced it to practical diagnostic work, and WAISMAN and HAMELIN recently started investigations into the applicability of this method to many epidemiological works conducted by WHO.

Soon after the Dermatological Clinic of the Białyystok Academy of Medicine introduced the IFTT to routine diagnostic work, investigations started into a simplified modification which could find application to mass examinations. In these investigations we relied chiefly upon our experiences with MILGROM's modification of the CHEDIAK test, and with the recently elaborated MILGROM and BENTLEY modification of the SINGER and PLOTZ test used in studies of the rheumatic factor.

PERSONAL STUDIES: One hundred and seventy-five persons were included. Among them, fifty persons had, or were suspected of having, syphilis, and 125 persons were non-syphilitic.

METHODS OF EXAMINATION: The fingertip was punctured with an injection needle. A drop of blood should drop by itself, without pressure on the finger, on a slide. With the edge of another slide, the drop is spread out over a surface area the size of a 20-penny coin (ca. a. quarter). Before the test proper, 0.1 ml buffer NaCl solution of pH 7.2 is placed with a pipette on the dried blood drop. With the edge on another slide, the blood is mixed with the NaCl solution. The slide is placed in a moist chamber for 15 minutes. After this time, with a platinum loop a physiological drop is taken from the homogenous liquid blood

dilution, and transferred to a slide with fixed treponema antigen to carry out the IFTT. The remaining fluid can be used for dilutions in a quantitative test. Further phases of the test are conducted according to DEACON's technique. They did not differ from the routine IFTT technique used in the Białystok Laboratory.

The results of our own studies, made with the simplified modification and the original method of IFTT, showed complete agreement in 44 syphilitic patients. In the remaining patients, examined as controls after treatment, the test made by its simplified modification gave positive result, while the original form of the test gave doubtful results.

In twenty-five patients who had a markedly positive qualitative reaction, quantitative examinations were made with both the simplified modification and the original method. In all cases, the titres agreed within the range of one dilution.

In the control group of 12 non-syphilitic persons, a weak non-specific fluorescence was found in four cases, which, according to the accepted principles, was marked plus-minus, or one-plus. In the remaining 121 cases, the result was completely negative.

The presented results, which are in need of confirmation on a much larger material, prove that the simplified modification of the IFTT is distinguished by a very great sensitiveness, and its specificity seems to be good enough for the purposes of mass examinations.

(The author sends LITERATURE at request)

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