

constituants, ceux-ci sont issus de cette solution de continuité et sont alors rassemblés sous forme de nouvelles bandes.

En conclusion. L'obtention par élution de fractions parfaitement homogènes après électrophorèse en gel d'amidon, est extrêmement difficile et doit être soumise comme contrôle de pureté à l'analyse immunoelectrophorétique, capable par sa sensibilité de révéler éventuellement l'hétérogénéité de la fraction envisagée.

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Centre National de Transfusion sanguine, Paris, le 3 novembre 1958.

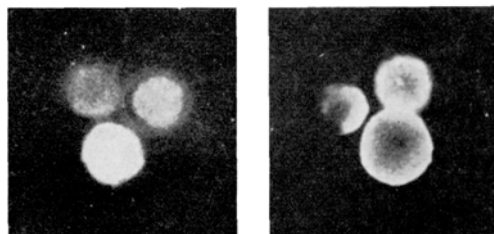
Summary

Human plasma components, separated by starch gel electrophoresis, are eluted and concentrated by lyophilisation. Immuno-electrophoretic analysis shows that certain of these fractions are immunologically heterogeneous.

The authors point out that this immunological criterion should be used before employing an eluted fraction, even if it appears electrophoretically homogenous.

The Demonstration of D (Rh) Antigen in Human Leukocytes

Observations on the presence of D (Rh) antigen in human leukocytes are scarce and contradictory^{1,2}. Results described in this communication indicate that D antigen may be detected in white cells from Rh-positive persons by means of the fluorescent antibody technique first described by COONS and KAPLAN³.



A

B

The staining technique consists of three steps: (1) incubation of leukocytes with anti-D serum; (2) exposure of sensitized white cells to chicken anti-human globulin serum, and (3) staining with anti-chicken globulin fluorescein conjugate (kindly prepared by Dr. A. PRINCE). The leukocytes from Rh-positive and Rh-negative persons were investigated. The controls were as follows: (a) washed cells, examined for autofluorescence; (b) leukocytes directly exposed to fluorescein conjugate; (c) sensitized white cells stained with fluorescein conjugate; (d) leukocytes treated with chicken anti-human globulin serum and incubated with conjugate, and (e) white cells from Rh-positive persons incubated in normal human serum which does not contain anti-D antibody. A Reichert

fluorescent microscope equipped with a high pressure mercury vapor lamp and dark field condenser was used. The photographs were taken on Agfa Fluorapid Film which is particularly sensitive to yellow-green light.

Typical results are shown in the Figure in A the white cells are seen in ordinary dark field, and in B with ultraviolet light. Controls are equally visible in ordinary dark field, but did not fluoresce yellow-green. A weak bluish autofluorescence was sometimes visible. Positive results are only obtained with leukocytes from Rh-positive persons. The full report will be published elsewhere.

Mr. T. L. LINCOLN is supported by a U.S. Public Health Service Fellowship, and a James Hudson Brown Fellowship, Yale University.

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Microbiological Institute, Belgrade University School of Pharmacy, Belgrade (Yugoslavia), September 30, 1958.

Zusammenfassung

Mit indirekter Fluoreszenz-Antikörper-Methode wurde nachgewiesen, dass Leukozyten Rh-positiver Versuchspersonen D-Antigen enthalten.

Immunology of Toxemias of Pregnancy II. Immunological Reactivity in Eclamptic Conditions

In the first part of this study we have pointed out the presence of autoantibodies in the sera of pregnant women suffering from preeclampsia. In this part we are following immunological reactivity in this disease.

Materials and Method. A group of 86 women whose pregnancy had lasted from 2 to 8 months were each given a single antigenic stimulus by injecting subcutaneously 0.5 ml Brucella bacterine of Nr. 2 density of the McFarland scale. The immunization had been preceded by control tests for antibody to Brucella, with uniformly negative results. The response by antibody was assessed thrice: on the 7th, the 14th and the 21st days following the impulse. Evaluation of immunological reactivity was based solely on findings of incomplete antibodies. In cases where their titre did not exceed the titre of agglutinins, it was presumed that both titres were identical. The method employed had been described in detail in previous papers¹⁻³.

Only those women whose history was free of brucellosis, allergic diseases, acute rheumatic fever and acute diffuse glomerulonephritis were selected for the research. Simultaneously with the antigenic impulse, they were subjected to a thorough medical and gynaecological investigation; in none of them was the result pathological.

After parturition the women were divided, according to their course of pregnancy following the immunization, into a group with pathological (preeclamptic) course of pregnancy (19 cases), and into a control group (67 cases). Symptoms adopted for the determination of toxemia of

¹ V. WAGNER, V. REJHOLEC, and V. MALÝ, *Ann. rheum. Dis.* 14, 243 (1955).

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³ V. REJHOLEC, V. FENC, V. WAGNER, M. REPIČ-ŠLECHTA, and E. HALLEROVÁ, *Minerva nefrolog.* 2, 3 (1955).

¹ B. W. GURNER and R. R. A. COOMBS, *Vox Sang.* 3, 13 (1958).

² J. DAUSSET, J. COLOMBANI, and J. EVELIN, *Vox Sang.* 3, 266 (1958).

³ A. H. COONS and M. H. KAPLAN, *J. exp. Med.* 91, 1 (1950).