The Erythrocytes Sensitized with Tuberculin-Polysaccharide in the Circulating Blood:—Its Diagnostic Application for Early Stage of Tuberculosis in Children*

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In tuberculous cases of children, the erythrocytes sensitized with tuberculin-polysaccharide were detected by means of the agglutination reaction between the erythrocytes and the immune serum prepared in the following way. Sheep were treated by repeated injection of killed tubercle bacilli, until the serum obtained from same was able to cause an agglutination with the human erythrocytes sensitized with 0.178 mg% solution of tuberculin-polysaccharide.

The cases of tuberculosis with sensitized erythrocytes in the circulating blood were more frequently found in the age under 3 years than in the older children, while the cases with the antibodies against tuberculin or tuberculin-polysaccharide in the serum occurred more frequently in older children. This relation between the age on one side and the phenomenon between the sensitized erythrocytes in the blood and the antibodies against tuberculin or tuberculin-polysaccharide on the other held good, irrespective of the results of the Mantoux test (using old tuberculin of a dilution 1:2000).

As the factors contributing to facilitating the sensitization of the erythrocytes with tuberculin-polysaccharide in infants, we want to emphasize the poor formation of the antibody against tuberculin-polysaccharide in infantile age on the one hand and frequent contact with tuberculous patients in the family circle on the other hand.