

from the position of the biologically active RNA in both 'G-200' and 'G-100 Sephadex' chromatography, the molecular weight size is estimated to be about 100,000. This would be sufficient to code for a polypeptide of 10,000 molecular weight, which is the molecular weight of the variable regions of both the heavy and the light polypeptide chains of antibody molecules. Studies to show that the RNA is synthesized *de novo* and identify directly the peptide product of the purified immunogenic RNA are in progress.

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Detection of Hepatitis Associated Antigen by Latex Agglutination

THERE has been a marked increase of post-transfusion hepatitis associated with the increased utilization of blood and its products. The discovery of a reaction of serum from multiple transfused haemophiliacs with serum from patients suffering from hepatitis^{1,2} has made it possible to analyse the hepatitis associated antigen (HAA), the agent associated with the transmittance of hepatitis. HAA is currently detected using haemophilic serum as the antibody source and standard serological techniques, that is, immunodiffusion, complement fixation and immunoelectro-osmophoresis³. This report describes a latex agglutination procedure which is compatible with the existing technology in blood banks as well as being very rapid and sensitive. The assay is based on the agglutination of antibody-adsorbed latex particles by HAA contained in the test serum.

Antibody was obtained from a haemophilic who had received multiple transfusions over several years and was asymptomatic for hepatitis. The antibody titre was determined to be 1 : 8 by complement fixation and monospecific for HAA by immunodiffusion. A suspension of latex particles (0.5 μ ,

Table 1 Detection of HAA by Latex Agglutination, Immunodiffusion and Complement Fixation

Assay	Percentage	
	Positive	Negative
Latex agglutination	30.8	69.2
Immunodiffusion	30.7	69.3
Complement fixation	26.8	73.2

10% solids, Kalstead Laboratories, Minneapolis) was absorbed with antibody containing serum for 1 h at 37° C. The absorbed particles were removed by centrifugation (200g, 5 min) and suspended to a concentration of 3% with 0.9% saline. The absorbed particles are stable at 4° C for at least 8 weeks. The following components were mixed in test-tubes (12 × 75 mm) and incubated at 37° C for 15 min: antibody adsorbed latex particles (0.1 ml.), saline (0.1 ml.) and serum to be tested (0.1 ml.). A serum is considered positive for HAA if a visible agglutination is present at the end of the 15 min incubation. Normal serum does not agglutinate the adsorbed latex particles.

The sera tested for the presence of HAA used in this report were from a general hospital population. All sera (209) were jaundiced and the patients had some physical symptoms of hepatitis. The hospital which supplied the samples is in an area which is endemic for hepatitis. Immunodiffusions (ID) were performed in the usual manner using 1% agar⁴ and incubated at 25° C for 24 h. Complement fixation assays (CF) were performed in the usual manner using the micro-titre system^{5,6}.

The correlation of the latex agglutination (LAT), ID and CF is shown in Table 1. The LAT and ID show an excellent correlation in their ability to detect the presence of HAA. Serum containing HAA was fractionated on a 'Sepharose 4B' column and the column eluants were assayed for HAA. The HAA was only detected in the void volume fractions by LAT and ID and no other fraction or combination of the negative fractions were positive for HAA. This indicates that the LAT assay is specific for hepatitis-associated antigen and does not react with normal serum proteins. The geometric mean titre of the LAT assay is about four times more sensitive than CF and about eight times more sensitive than ID.

We consider that the LAT scheme is technologically simple, rapid and sensitive. This assay can be used in mass screening programmes or on individual samples with equal ease. The adsorbed latex particles are stable for at least 8 weeks without loss of sensitivity.

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Herpesvirus ateles, a New Lymphoma Virus of Monkeys

A NEW herpesvirus, designated *Herpesvirus ateles*, has been isolated from a spider monkey (*Ateles geoffroyi*) primary kidney culture. The culture was prepared from a mature male spider monkey (810-69) imported from Guatemala and housed in our laboratory for 12 months. The cell layer was obtained from