

February 1982
Memo-H-1933

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DEMONSTRATION OF NON-A NON-B ANTIGEN AND ANTIBODY BY
AGAR GEL DIFFUSION

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Sixty serum samples from patients with acute viral hepatitis found negative to HBsAg (Ausazyme, Abbott Laboratories, USA), anti-HBsAg (AUSAB, Abbott Laboratories) and negative to IgM anti HAV by ELISA technique¹ and 17 serum samples from normal healthy controls were tested for the presence of antigen-antibody system of non-A non-B hepatitis by modified immunodiffusion technique² of Le Bouvier.

The reference antigen and the reference antibody for the test were detected by counter immunoelectrophoresis technique. Acute, phase sera from 5 patients of non-A non-B hepatitis was tested against convalescent sera from the same patients. Also, the acute phase sera of 36 patients was tested against convalescent sera from different patients with non-A non-B hepatitis. Only the samples strongly reactive as judged by a clear precipitin line were used as reference reagents for subsequent screening with immunodiffusion technique.

All the 17 samples from healthy controls were found non-reactive. These samples were also tested to be negative for HBsAg and anti-HBsAg. Twenty-seven and 12 samples of the 60 samples from acute viral hepatitis were found to be reactive for antibody and antigen to non-A non-B respectively, whereas, non-reactive samples (21) were referred to be of unknown identity.

Table I represents the comparison of transaminases values and the time duration of illness between the samples reactive for the antibody and the antigen. Significant difference was observed for transaminase values in patients positive for antibody and the antigen. Antigen was detected in the acute phase sera when SGOT-SGPT levels were significantly elevated.

References:

- ¹Møller A.M. and Mathiesen L.R.
Detection of Immunoglobulin M Antibodies to Hepatitis A Virus by Enzyme Linked Immunosorbant Assay.
J. Clin. Microbiol. 1979 (10) 628-632
- ²Tandon B.N., Krishnamurti L. and Gandhi B.M.
HBeAg and Anti HBe in Acute and Chronic Liver Diseases
Indian J. Med. Res. 1979 (70) 102-106

TABLE I

Transaminases Values and Time Duration of Hepatitis in Patients with Antibody or Antigen to Non-A Non-B Hepatitis

		SGOT (Karmen Unit)	SGPT (Karmen Unit)	Duration (Weeks)
Samples Reactive for Antibody (27)	Mean \pm S.D	82 \pm 90	150 \pm 221	8.8 \pm 7.3
	Median	45	55	8
	Range	18-300	15-700	1-24*
Samples Reactive for Antigen (12)	Mean \pm S.D	150 \pm 101	210 \pm 167	5.4 \pm 4.5
	Median	120	200	4
	Range	40-350	25-600	2-16
P Value		2.750	1.963	0.634
		< 0.01	< 0.05	N.S.

* One patient having jaundice for 2 years has been omitted.