

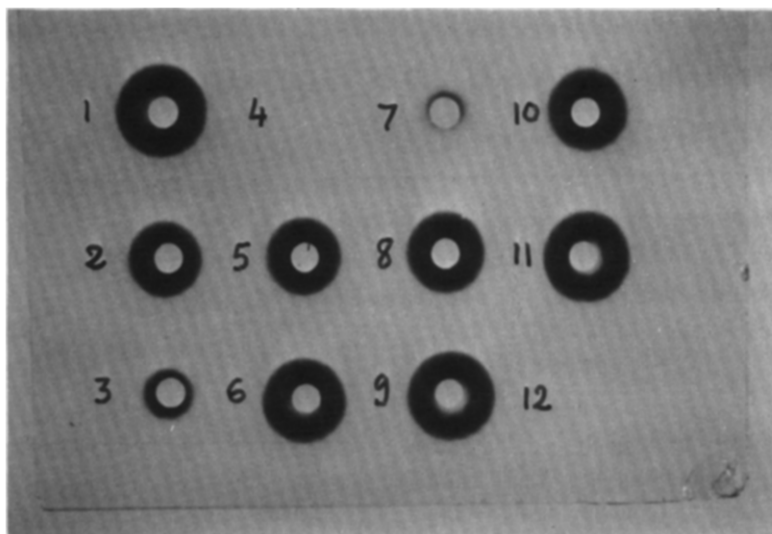


FIG. 1. Antigen used, TMI-GO. Wells Nos. 1, 2, and 3, whole rabbit antisera to TMI, PMI, and HMI, respectively; Nos. 4, 5, and 6, whole rabbit antisera to TMI plus TMI hapten (800, 80, and 8 mmol/L), respectively; Nos. 7, 8, and 9, the same antisera plus PMI hapten (800, 80, and 8 mmol/L), respectively; Nos. 10 and 11, the same antisera plus HMI (800 and 80 mmol/L), respectively; No. 12, normal rabbit serum.

HMI (1:320,000) by ELISA were tested by ERIDA. The diameter rings of these three whole antisera obtained by ERIDA were the same (about 8 to 8.5 mm).

For cross-reactivity at 50% inhibition: TMI antibody interfered with PMI and HMI haptens at 55% and 5%, respectively, by ELISA, and 50% and 3%, respectively by ERIDA. PMI antibody interfered with TMI and HMI haptens at 57% and 6% by ELISA and 55% and 4% by ERIDA, respectively. HMI antibody elicited an interference of 5% with TMI and PMI by both methods.

Twelve sera of exposed workers, two of whom have asthma, were tested by both methods. These determinations demonstrated two positive cases (one worker having asthma) with specific IgG4 levels about 1:500 and IgE levels 1:100 and 1:200 by ELISA, and a violet ring about 2 mm by ERIDA, both against TMI antigen. Inhibition study by TMI, PMI, and HMI, separately, had confirmed the presence of this antibody only.

For ERIDA, no violet ring was observed with rabbit antisera antihuman serum albumin or with GO alone incorporated in the gel.

In conclusion, we observed a good agreement be-

tween the two methods, ERIDA and ELISA, for isocyanate antibody determination in the rabbit. However, this study is considered to be preliminary in man because of the small number of asthmatic cases. A further clinical study by these two methods is being investigated.

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