

ANTIBODIES TO RUBELLA VIRUS IN MALTESE WOMEN OF CHILD BEARING AGE

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Circulating antibody to Rubella virus is present in about 85% of women of child bearing age in England (PHLS, 1970) and in most large developed countries (Rawls *et al.*, 1967). However, the population of Jamaica and Trinidad show much lower protection rates of 56% and 33% from the main centres in the islands, with even lower rates of 48% and 29% from rural areas (Dowdle *et al.*, 1970). This may be inherent in island populations or may be a chance finding. With this in mind sera

from women in Malta were examined for evidence of previous exposure to Rubella virus.

Materials and methods

Sera were obtained from healthy pregnant women attending ante-natal clinics. Two ml. samples were sealed in glass ampoules with sufficient sodium azide as a preservative to give a final concentration of 0.08%. These were posted to the

investigating laboratory where they were tested by a haemagglutination inhibition test, (Stewart *et al.*, 1967) using a Heparin-Mr Cl₂ mixture to remove non-specific inhibitors of rubella haemagglutination (Feldman, 1968).

A macro-titre technique was used throughout with unit volumes of 0.1 ml. Antigen and a positive serum control were obtained from the Standards Laboratory for Serological Reagents, Central Public Health Laboratory, Colindale. A titre of 1/16 or greater was considered to demonstrate previous infection with Rubella virus and therefore, immunity to subsequent infection.

strated in this study can be accepted within the range plus or minus 3%.

The well developed road and public transport systems encourage movement, and opportunities for infection at an early age will be frequent.

The number of women in their thirties without antibody would suggest that certain individuals are resistant to primary infection.

Acknowledgements

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TABLE 1
Antibody titres to Rubella virus of
406 Maltese women

TITRE	< 1/16	1/16	1/32	1/64	1/128	1/256	1/512	1/1024	1/2048
No.	37	17	39	57	78	80	48	27	23

Results

Four hundred and six sera were tested and the results are shown in *Table 1*. Antibody to Rubella virus was present in 369 (91%). The ages of the women involved are shown in *Table 2*.

TABLE 2
Ages of 406 women examined

Under 20	39
20 - 30	280
30 - 40	75
Over 40	10
Unknown	2

Of the 37 individuals without detectable antibody, four were teenagers, 22 were in their twenties and 11 were over 30.

Discussion

With a total population of about 300,000 the degree of protection demon-

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