

# **ANTIBODY TO TOXOPLASMA GONDII AMONG PREGNANT WOMEN IN MEDINA MUNAWARAH**

Pages with reference to book, From 44 To 45

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Variations in the prevalence of antibody to toxoplasma gondii is reported from various countries (Hong Kong 9.8%, London 22%, New York 30%, Paris 84%)<sup>1-4</sup> and from various cities in the same country (Jeddah 32%, Abha 51%)<sup>5</sup>. An area densely populated with cats is believed to be heavily contaminated with toxoplasma oocysts, leading to an increasing infection<sup>6</sup>. As MedinaMunawarah has a large number of cats, this survey was conducted to find the prevalence of antibody to toxoplasma gondii among pregnant women.

## **SUBJECTS, METHODS AND RESULTS**

Blood samples were collected from 400 Saudi pregnant women. Each woman completed a form to provide information pertaining to age and education. Pending analysis sera were stored at -20°C. Tests for antibody to toxoplasma gondii were carried out using kits manufactured by Eiken Chemicals Co. Ltd., Tokyo, Japan. The overall exposure rate to toxoplasma gondii was 39%. There was a significant (P) difference in the rates among 226 women aged 25 years and less (31.8%) compared to those 174 aged 26 years and above (48.2%) as shown in Figure 1.

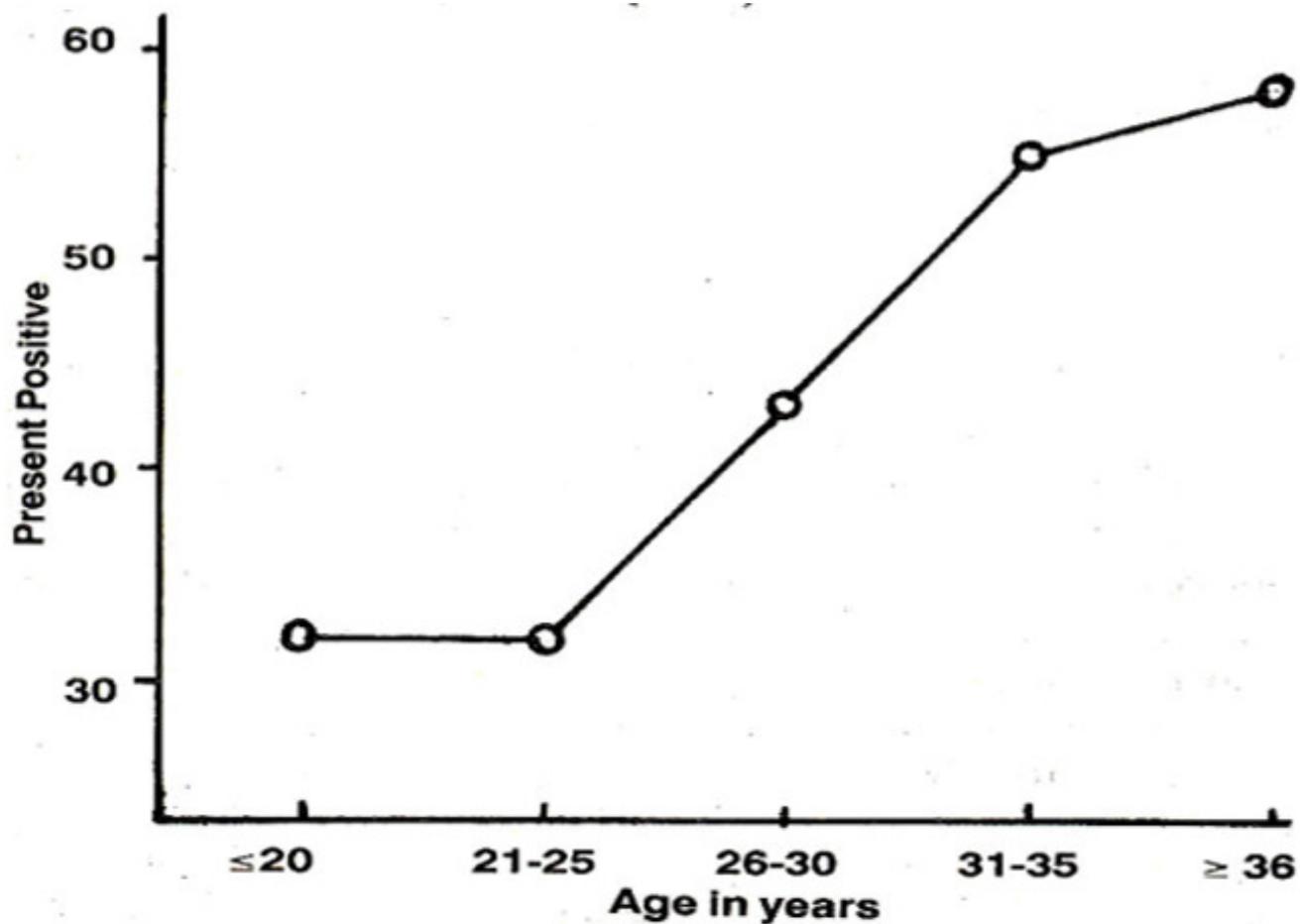


Figure 1. Correlation between antibody to toxoplasma gondii and age.

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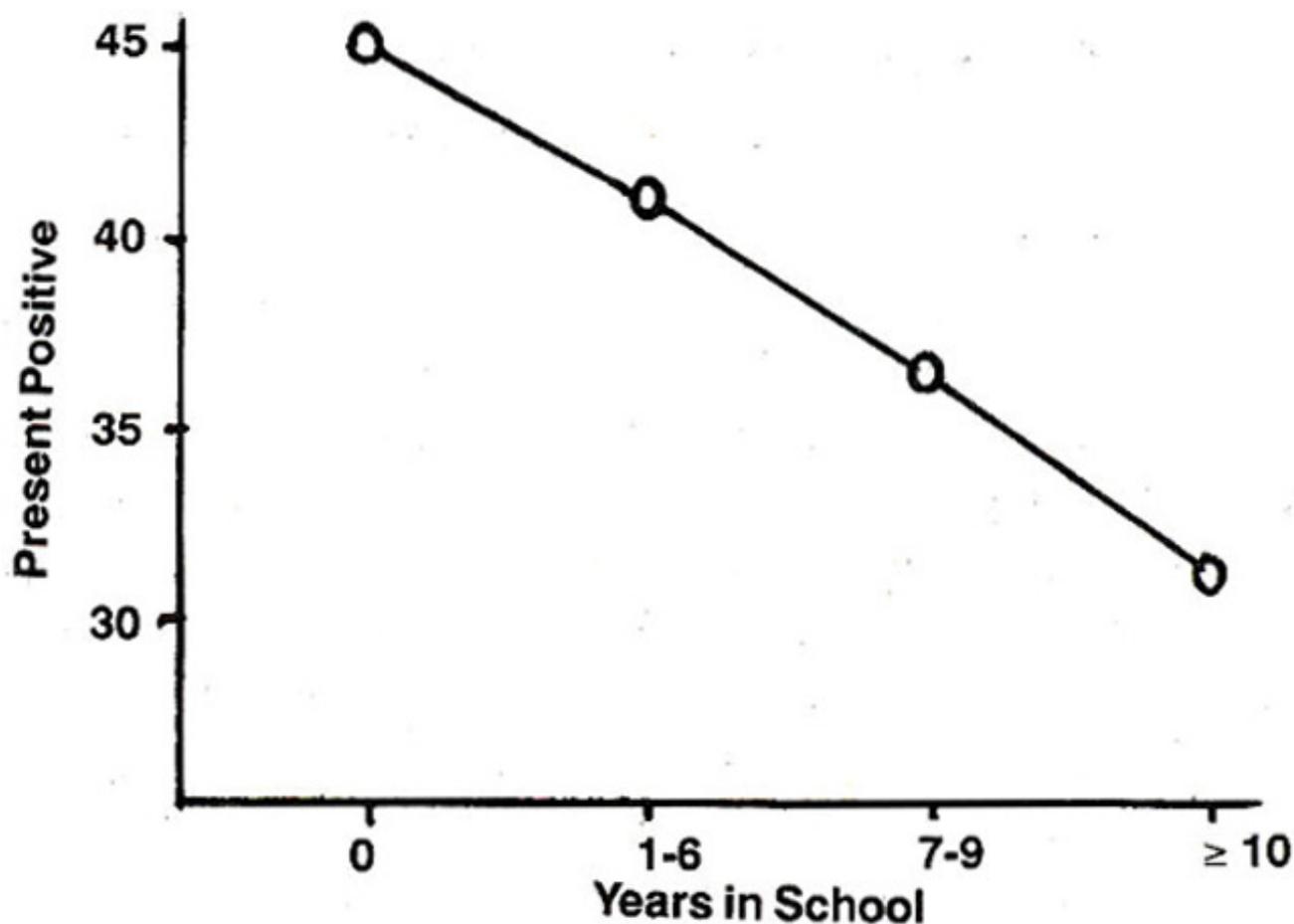


Figure 2. Correlation between antibody to toxoplasma gondii and education.

Figure 2 shows that women with a schooling of 12 years or more had lower rate (31%) of exposure to toxoplasma than those with no formal education (45%).

## COMMENTS

The prevalence (39%) of antibody to toxoplasma gondii among the pregnant women in Medina Munawarah is close to the rates found at Dammam, Riyadh and Jeddah, but is higher than Hofuf and is lower than Abha<sup>5</sup>. Although 39% of the women showed immunity to the parasite but 61% females of child bearing age are still susceptible to toxoplasma infections and may acquire it during pregnancy. It has also been observed that 68% of the mothers under the age of 25 years lack immunity to this organism. Identification of these women during early pregnancy is an important factor in any prevention and/or treatment scheme and all seronegative mothers should be retested during the second and third trimester. A low prevalence of antibody among the educated females may be due to better hygienic standards and cautious handling of domestic pets. Congenital problems can be reduced if the primary maternal infections are diagnosed and treated during pregnancy<sup>7</sup>. In France and Germany 50 to 70% cases of congenital toxoplasmosis were prevented by the use of pyrimethamin and sulphonamide<sup>8</sup>. Spiramycin administered for acquired toxoplasmosis during pregnancy reduced it by 50%<sup>9</sup>. Thus it is important that toxoplasmosis in a pregnant mother should be diagnosed and treated as early as a possible.

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