

A REVIEW OF THE DISTRIBUTION OF MATERNAL SERUM α -FETOPROTEIN VALUES AMONG JAPANESE PREGNANT WOMEN. M. Ashizawa and G. Nozue. Institute of Public Health, Japan Red Cross Medical Center. Tokyo.

The five Japanese Red Cross Hospitals consisted of a birth defects monitoring System were collaborated in a study of a screening by maternal serum AFP measurement for early detection of neural tube defects. 4,531 specimens were collected from 4,020 pregnant women at 10 - 26 weeks of gestation. The measurement was performed by AFP-RIA Kit (Dinabot) at one laboratory. AFP values increased exponentially from 15 to 20 weeks. Having set 2.0 multiple of median as cut-off levels in the screening, 122 cases (2.7% of the total) were screened out. They are 1 case of anencephaly, 4 cases of twin, 2 cases of intrauterine fetal death, 20 cases of normal delivery and the outcome of the rest are still unknown. Although the size of our data seems insufficient to review on validity of screening procedures, our data suggest the distribution is quite similar to those of western countries.

Solid-phase Radioimmunoassay for Detection of Toxoplasma Antibodies and Antigens. K. Kamei. Teikyo university, School of Medicine, Tokyo.

(1) A solid-phase radioimmunoassay for detecting anti-toxoplasma antibodies was studied using human sera. Toxoplasma lysate antigens was fixed on polystyrene tubes. Specific antibodies binding on the fixed antigen was measured by 125 I-labelled anti-human γ -globulins. Results on a totally 537 human specimens was compared with those obtained in toxoplasma latex agglutination test and toxoplasma indirect hemagglutination test. Radioimmunoassay for toxoplasmosis gave highly specific, sensitive and reproducible results; thus the test appeared to be the best measure for mass survey for infants using small amount of blood taken in filter paper.

(2) The circulating antigens were studied in relation to the diagnosis of acute toxoplasmosis in man and animals. Through the course of acute phase of Toxoplasma infection, the circulating antigen was demonstrated in the sera by means of radioimmunoassay from mice and mongolian gerbils. However, the circulating antigen was not detected in the animals with chronic latent toxoplasmosis. In the human sera from patients who acquired acute toxoplasmosis in the laboratory, and also in the human sera from patients with acute toxoplasmic lymphadenitis, appreciable amount of the antigen was measured, while circulating Toxoplasma antigen was not demonstrated in any human case with latent chronic toxoplasmosis. The radioimmunoassay for the antigen was considered to be applicable to the diagnosis of acute human toxoplasmosis.