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LEVELS OF ALPHA-FETOPROTEIN DURING PREGNANCY IN NORMAL STATE IN RUSSIAN POPULATION WITH TWO-SITE MONOCLONAL ELISA

Background. Alpha-fetoprotein (AFP) is a protein normally produced by the fetal liver. AFP crosses the placenta into the mother's blood. Abnormal levels of maternal serum AFP may signal a problem with the fetus. For this reason, the determination of normal range limits is actually. Methods. Serum concentration of AFP was measured using a monoclonal two-site ELISA (DS-EIA-AFP).

Results. Maternal serum AFP values from 804 unaffected, singleton white pregnancies (Central Russia and Volgo-Viatsky Region, mean age 27 years, range from 16 to 40 years) were ranged according to the gestational week from 8 to 36. Medians and multiples of medians (MoM) were calculated for every group. Normal range limits (0.5MOM-2.5MOM) for gestational weeks 14 to 21 are presented: 14 gestational week median 25.24IU/ml normal range from 13 to 63IU/ml; 15 gestational week median 32.59IU/ml normal range from 16 to 81IU/ml; 16 gestational week median 36.78IU/ml normal range from 18 to 92IU/ml; 17 gestational week median 37.47IU/ml normal range from 19 to 94IU/ml; 18 gestational week median 38.25IU/ml normal range from 19 to 96IU/ml; 19 gestational week median 50.70IU/ml normal range from 25 to 127IU/ml; 20 gestational week median 58.19IU/ml normal range from 29 to 145IU/ml; 21 gestational week median 53.51IU/ml normal range from 27 to 134IU/ml.

Conclusions. We defined normal limits of maternal serum AFP in Central Russia population with DS-EIA-AFP. We concluded that the definition of abnormal range of AFP for the identification of cases at pregnancy risk will probably only be possible at 14-21 weeks.

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