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LETTER TO EDITOR

Toxoplasma Scanning During Pregnancy

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Although there are national policies about performing toxoplasma scanning on pregnants or newborns in many countries throughout the world, there is no certain policy of Turkish Ministry of Health. Different centers or physicians get their own way and consequently, management of seropositive cases drift into a complete chaos due to different views and implementations.

There are three types of protective approaches in order to prevent congenital toxoplasma infection. The purpose of primary protection is to prevent maternal infection and to inform and train mother at early pregnancy.[1] Secondary protection aims to decrease infection transition from mother to fetus and to prevent morbidity associated with toxoplasma. Tertiary protection focuses on decreasing the severity of morbidity associated with congenital toxoplasma by postnatal early diagnosis and treatment.[1] Scanning pregnants in terms of toxoplasma seropositivity is included into secondary protection and is implemented as a state policy in countries such as Austria, France, and Brasilia etc. Toxoplasma seropositivity in France is 50% while it is 80-90% in Brasilia. Spiramycine treatment and amniocentesis is applied in cases which have seroconversion during pregnancy and accepted as an acute infection.[1] If fetal infection exist as a result of PCR examination performed on amniocentesis material, pyrimethamine and sulphonamide is administrated as preferred treatment. Termination of pregnancy is generally considered as an option only if fetal anomaly is detected in ultrasonography and family is informed for alternatives. However, there is no certain proofs that infection transition from mother to fetus and perinatal results are recovered by treating pregnants with seroconversion detected during pregnancy.[2,3] Also, there are some problems with kits used in serological scanning of toxoplasma. Most of current Ig M kits have a serious specifity problem and cause high false positivity rates (reaching 6%).[4] In a study researching six different Ig M kits, sensitivity rates were found between 93% and 100% while specifity rates were between 77.5% and 99.1%.5 Although beginning to use PCR method makes fetal diagnosis easy, the sensitivity of this method still stays below 83%.1 While the specifity of PCR is 100% at reference laboratories, lower rates are reported in many other laboratories.1 Another important issue is the requirement to do amniocentesis to cases with seroconversion detected by toxoplasma scanning during pregnancy. There is 0.5% (1 in 200 processes) risk of pregnancy loss in amniocentesis according to current literature. Ig M positivity is detected in 1-5% of patients in toxoplasma scanning. While some of them show acute infection, most of them are false positivity.

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However, acute infection can not be eliminated by methods such as increases in Ig A titer, Ig G-avidity, toxoplasma Ig G titer in some of false positive cases and therefore amniocentesis is tried. However, congenital toxoplasma prevalence is very low and it is reported as 0.73 in Sweden, 0.8 in Massachusetts, less than 1 in England, 2.4 in Finland, and 10 in France in terms of 10,000 live birth.[1,6] Thus, fetus number to be lost in order to detect 1 congenital toxoplasma case will be unacceptably high.[1,7] It is well known that false positive results in toxoplasma scanning, possible negative effects of medical treatment on cases detected fetal infection and uncertainties about prognosis cause serious anxiety on mother and father.[8]

Due to these scientific facts, toxoplasma scanning is not performed during pregnancy today in the USA. Serological examination is performed only in cases detected anomaly via ultrasonography. Scanning performed previously in Switzerland has been terminated recently.[9] ACOG (American College of Obstetricians, Gynecologists) does not recommend routine toxoplasma scanning during pregnancy.[10] RCOG (Royal College of Obstetricians and Gynecologists) states that it is useful to train pregnants about toxoplasma; however RCOG does not recommend routine toxoplasma scanning.[11] CDC (Centers for Disease Control and Prevention) emphasizes the importance of primary protection and recommends to train pregnants and women in reproductive age group about the protection against toxoplasma infection; however CDC does not recommend serological toxoplasma scanning during pregnancy.[4] CDC also states that it would be appropriate to warn pregnants about two issues related wit toxoplasma serological tests: First, no serological test can show the exact time of toxoplasma infection, and secondly, the most positive Ig M results in societies with low toxoplasma prevalence represent false positivity.[4] In our country, toxoplasma serology does not exist among routine tests recommended by Turkish Perinatology Society during pregnancy.

In this issue of Perinatology Journal, there is a study researching toxoplasma seroprevalence of pregnants in Kayseri. This study is important in terms of showing the recent status of toxoplasma prevalence in pregnants in Turkey and it contributes daily obstetric practice by emphasizing the importance of training pregnants about toxoplasma protection. On the other hand, 33.9% seropositivity found in this study is not a high rate in terms of epidemiology. This rate is low according to other studies performed in Turkey. It seems by the studies performed in other European countries that there is a similar decrease in last 2 decades. Therefore, it is not possible to agree the recommendation of authors for doing toxoplasma scanning during pregnancy in terms of the prevalence found not high and other current scientific facts mentioned above.

Consequently, it is important to train pregnants and women planning pregnancy about obeying general hygiene rules and not contacting with cats and cat droppings, eating meat products by cooking well instead of consuming them raw, not touching soil with bare hands and feet and consuming fruits and vegetables by peeling them or cleaning well in order to get protection against congenital toxoplasmosis. Serologic toxoplasma scanning is not recommended in pregnants who are not in the risk group.

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