

Prenatal education for congenital toxoplasmosis

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BACKGROUND

Congenital toxoplasmosis is considered a rare but potentially severe infection. Prenatal education about congenital toxoplasmosis could be the most efficient and least harmful intervention, yet its effectiveness is uncertain.

OBJECTIVES

To assess the effects of prenatal education for preventing congenital toxoplasmosis.

SEARCH METHODS

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (15 January 2012), PubMed (1966 to 15 January 2012), EMBASE (1980 to 15 January 2012), CINAHL (1982 to 15 January 2012), LILACS (1982 to 15 January 2012), IMEMR (1984 to 15 January 2012), and reference lists of relevant papers, reviews and websites.

SELECTION CRITERIA

Randomized and quasi-randomized controlled trials (RCTs) of all types of prenatal education on toxoplasmosis infection during pregnancy. Cluster-randomized trials were included.

DATA COLLECTION AND ANALYSIS

Two review authors independently assessed trials for inclusion and study quality. Two review authors extracted data. Data were checked for accuracy.

MAIN RESULTS

Two cluster-randomized controlled trials (involving a total of 5455 women) met the inclusion criteria. The two included trials measured the effectiveness of the intervention in different ways which meant that meta-analysis of the results was not possible. One trial (432 women enrolled) conducted in Canada was judged of low methodological quality. The authors did not report measure of association but only provided P values ($P < 0.05$) for all outcomes. Moreover, losses to follow-up were high (34%, 147 out of 432 women initially enrolled). The authors concluded that prenatal education can effectively change pregnant women's behavior as it increased pet, personal and food hygiene. The second trial conducted in France was also judged of low methodological quality. Losses to follow-up were high (44.5%, 2233 out of 5023 women

initially enrolled) and differential (40% in the intervention group and 52% in the control group). The authors concluded that prenatal education for congenital toxoplasmosis has a significant effect on improving women's knowledge whereas it has no effect on changing women's behavior. In this trial 17/3949 pregnant women seroconverted for toxoplasmosis: 13/2591 (0.5%) in the intervention group and 4/1358 (0.3%) in the control group. The number of events was too small to reach conclusions about the effect of prenatal education on seroconversion rate during pregnancy. No other randomized trials on the effect of prenatal education on congenital toxoplasmosis rate, or toxoplasmosis seroconversion rate during pregnancy were detected.

AUTHORS' CONCLUSIONS

Even though primary prevention of congenital toxoplasmosis is considered a desirable intervention, given the lack of related risks compared to secondary and tertiary prevention, its effectiveness has not been adequately evaluated. There is very little evidence from RCTs that prenatal education is effective in reducing congenital toxoplasmosis even though evidence from observational studies suggests it is. Given the lack of good evidence supporting prenatal education for congenital toxoplasmosis prevention, further RCTs are needed to confirm any potential benefits and to further quantify the impact of different sets of educational intervention.