

Prevention of Fetal Growth Retardation (FGR) With Low-Dose Aspirin

The efficacy of low dose aspirin therapy in preventing fetal growth retardation (FGR) was tested in a randomized, placebo-controlled, double-blind trial. The possible beneficial effect of adding dipyridamole to aspirin also was tested. Studied were 323 women (29 to 45 years of age) who had been amenorrhic because of conception for 15 to 18 weeks. All had experienced at least 1 previous pregnancy with FGR and/or fetal death or abruptio placentae. They were randomized into 3 groups, receiving in double-blind fashion either:

Group 1 (n = 128) aspirin, 150 mg/d

Group 2 (n = 212) aspirin, 150 mg/d + dipyridamole, 225 mg/d

Group 3 (n = 74) placebo

Twin pregnancies, uterine malformations, and histories of specific known previous disorders that could affect pregnancy outcome were reasons for exclusion from the study. Of the 323 subjects, 284 satisfied all the criteria and were considered eligible for the epidemiologic analyses.

The birth weight was significantly ($P=0.029$) better in the treated groups ($2,759 \pm 670$ g) than in the placebo group ($2,526 \pm 848$ g). The frequency of FGR, evaluated according to Lubchenco's percentiles, was 13% in the treated groups vs 26% in the placebo group ($P=0.02$). The incidence of stillbirths (5% vs 1%) and abruptio placentae (8% vs 5%) was more frequent in the placebo group. The mean duration of pregnancy reached 264 ± 19 days in the treated vs 258 ± 27 days in the untreated women ($P=0.05$).

The frequency of hypertension, proteinuria, hyperuricemia, and thrombocytopenia was similar in all groups. Apart from headache, which occurred in both the placebo and the treatment groups, the incidence of maternal side effects was very low, and no neonatal side effects were observed. In all these respects, no significant differences were found between the group receiving aspirin alone and that receiving aspirin plus dipyridamole.

The authors conclude that their study confirms the efficacy of low-dose aspirin given early in pregnancy in preventing FGR. They suggest that it acts on prostaglandins, and probably inhibits thromboxane production. They do not yet recommend widespread use of aspirin in pregnant women, since they are conscious that much larger scale trials are needed to determine its complete safety. Their conclusion is that low-dose aspirin treatment may be beneficial for any pregnancy considered at high risk of FGR, and they hope that early, reliable, and inexpensive markers of this risk will be found.

Uzan S, Beaufile M, Breart G, et al. *Lancet* 1991;337:1427-1431.

Editor's comment: *FGR, with its many immediate dangers for the child, is a major concern for neonatologists and obstetricians. It is also of extreme importance for all those who are interested in children's growth, since short stature of intrauterine onset appears to be the main type of severe height insufficiency (with a poor prognosis for adult stature) seen in pediatric and adolescent endocrine clinics. Thus, any attempt to reduce the frequency or degree of FGR may have a great impact on improving this pediatric situation. Although it is on the obstetrical side of fetal medicine, this trial should be of direct interest for all growth specialists.*

J. C. Job, MD