Association between body mass index and pregnancy outcome in a randomized trial of cerclage for short cervix.

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Association between body mass index and pregnancy outcome in a randomized trial of cerclage for short cervix.

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Authors
Farinelli, CK, Wing, DA, Szychowski, JM, Owen, J, Hankins, G, Iams, JD, Sheffield, JS, Perez-Delboy, A, Berghella, V, Guzman, ER

Corporate Authors
Vaginal Ultrasound Trial Consortium

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Abstract

**OBJECTIVE:** To evaluate whether increasing body mass index (BMI) alters the efficacy of ultrasound-directed cerclage in women with a history of preterm birth.

**METHODS:** This was a planned secondary analysis of a multicenter trial in which women with a singleton gestation and prior spontaneous preterm birth (17 to 33 + 6 weeks' gestation) were screened for a short cervix by serial transvaginal ultrasound evaluations between 16 and 22 + 6 weeks. Women with a short cervix (cervical length < 25 mm) were randomly assigned to cerclage or not. Linear and logistic regression were used to assess the relationship between BMI and continuous and categorical variables, respectively.

**RESULTS:** Overall, in the screened women (n = 986), BMI was not associated with cervical length (P = 0.68), gestational age at delivery (P = 0.12) or birth at < 35 weeks (P = 0.68). For the cerclage group (n = 148), BMI had no significant effect. For the no-cerclage group (n = 153), BMI was associated with a decrease in gestational age at delivery, with an estimated slope of - 0.14 weeks per kg/m(2) (P = 0.03; including adjustment for cervical length). This result was driven primarily by several women with BMI > 47 kg/m(2). 

**CONCLUSION:** In women at high risk for
recurrent preterm birth, BMI was not associated with cervical length or gestational age at birth. BMI did not appear to adversely affect ultrasound-induced cerclage.

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