Modification of cervical length after cervical pessary insertion: Correlation with weeks of gestation
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Objective
To observe the modifications in cervical length in patients with and without cervical pessary (Arabin® ASQ 65/25/32) and correlate these modifications with gestational age at delivery.

Methods
Prospective study of asymptomatic singleton pregnancies (PECEP-Trial) between weeks 20+0 and 23+6 with maternal short cervix (<25 mm) randomised into two groups: expectant management and cervical pessary. Cervical measurement was performed two times in each patient. The first measurement was done at the moment of randomisation and the second measurement at any moment after randomisation and always before 24 weeks of gestation. In the pessary group the measurement was done after the pessary insertion.

Results
This study included 380 pregnant women: 190 with pessary and 190 without pessary. Mean CL in both groups at the time of randomisation showed no statistically-significant differences (pessary group: 19.0 mm and management group: 19.0 mm; p=0.9). Mean CL measured after randomisation was 15.4 mm in patients of the expectant management group and 21.5 mm in the pessary group. These differences were statistically significant (p<0.0001). When means at randomisation and at the second measurement were compared, CL had decreased by 3.6 mm in the expectant management group and increased by 2.6 mm in the pessary group; this difference was statistically significant (p<0.0001). Coefficients of correlation showed that among patients of both groups with the same CL at 20 weeks of gestation, those with a pessary gave birth later. Those coefficients also showed that, in the pessary group, the cervical length before the pessary insertion was more correlated with the weeks of gestation at delivery than the cervical length after the pessary insertion.

Conclusion
Insertion of an Arabin cervical pessary increased CL in asymptomatic patients with a short cervix, which is related with shorter gestational age at delivery. The cervical pessary halted the progressive decrease in CL, which correlated with longer gestational age at delivery. However, the increase of cervical length after pessary insertion did not correlate with more weeks of gestation at delivery.