Second trimester cervical length screening: a prevalence study

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Objective. A short cervix is a risk factor for preterm birth. The aim of this study is to evaluate the prevalence of short CL at the second trimester anatomy scan and its impact on preterm Birth (PTB) rates in the district of Modena and Parma, Northern Italy.
Materials and Methods. This is a multicenter, prospective cohort study (September 2020 to November 2021) screening women > 18 years for CL. Eligible women were those attending antenatal ultrasound morphology scans at National health system clinics in Modena and Parma districts. After informed consent, a transvaginal ultrasonogram was performed between 18+0 and 22+6 weeks of gestation. The *ad-hoc* database included known risk factors for PTB and delivery data. PTB < 37 weeks rate during the screening was compared with a previous control period, in the same districts (January to December 2019).
Results. Out of 5112 eligible women, 3083 participated in the screening. The remaining were randomly not screened mainly due to sonographer unavailability. The median CL was 40 mm (10^{th} centile = 34 mm). Overall, 28 (0.9%) women had CL ≤ 25 mm. Among them, 8 had PTB (28%) compared with 136 PTB (4.4%) in women with a normal cervix (p > 0.0001). PTB rates during screening period did not differ comparing to control period (145/2807, 5.2% *vs* 476/8387, 5.7%, p = 0.3) by the way, population doesn't look so different (**Table 1**).
Conclusions. Although poorly represented in our population, CL ≤ 25 confirmed to be a risk factor for PTB. CL universal screening seems not justified by the above findings.

Table 1. *PPT rate in screened population and in the control group.*

Preterm Birth	CL screening group (n, %)	Control group (n, %)	P value
< 37 weeks	(145/2.807), 5,16	(476/8.387), 5,70	0,31
34-36+6 weeks	(114/2.807), 4,06	(327/8.387), 3.90	0,70
< 32 weeks	(16/2.807), 0,57	(77/8.387), 0,92	0,08