

Differences on Risk of Cesarean Section After Labour Induction According Different Portuguese Hospitals

Cristina Teixeira, Teresa Rodrigues, Sofia Correia, Henrique Barros

Objective: To assess if the risk of caesarean section (CS) after labour induction (LI) differs between hospitals and which extent this association may explain differences in CS rates.

Methods: Participants (6688 Portuguese women) were consecutively recruited in five public hospitals (level III) during the assembling of a birth-cohort. Personal interviews were used to obtain data on socio-demographic characteristics, gynecological history and obstetric events. The risk (computed as odds ratio (OR) and 95% confidence Interval (95%CI)) of CS were considered according to hospital and adjusted for socio-demographic and obstetric characteristics. An interaction term (hospital and LI) was considered in the final model.

Results: The proportion of LI by hospital ranged from 15.8% to 53.5% ($p < 0.001$) and the proportion of CS varied between 22.2% and 35.6% ($p < 0.001$). Women with LI presented an higher adjusted rate of CS (OR=1.71; 95%CI:1.48-1.99). There was a statistically significant interaction between hospital and LI on the risk of CS ($p = 0.002$). After stratification by hospital and adjustment to characteristics of mother, the risk of CS for women with LI in comparison with those without LI was higher for three hospitals (OR=3.15; 95%CI:1.98-5.04, OR=1.84; 95% CI:1.38-2.46 and OR=2.04; 95%CI:1.52-2.73) but no such effect was found in the remaining two.

Conclusions: Different associations between LI and CS across hospitals probably result from different management of LI. These differences may partially explain discrepancies in CS rates across hospitals.