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ABSTRACT BOOK

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Shortening of the gestational age of newborns during 1995–2020 period: analysis of Lithuanian medical data of births

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Objectives. Shortening the gestational age (GA) has been the subject of debate for more than a decade. The aim of this study was to analyse the changes in the GA of single, live, naturally born newborns in Lithuania over twenty-five years.

Materials and methods. Medical data of births (1995, 2003, 2013, 2020) were analysed. GA was calculated from the date of the last menstrual period. Cases with the history of Caesarean section and all types of labor induction were excluded.

Results. Data of 70 030 newborns were analysed (50.68% boys). Decrease of the mean GA was observed in boys from 39.71 weeks in 1995 to 39.36 weeks in 2020 (difference was 2.45 days) and in girls from 39.72 weeks in 1995 to 39.43 weeks in 2020 (difference was 2.03 days). The gradual decline continued in all analysed years, but the biggest difference was between 2013 and 2020. The distribution of births by GA week groups showed a significant shift to the left (the frequencies of births at 37^{th} week increased by 2.2/1.09 % in boys/girls respectively, at 38^{th} week – by 4.6/4.01 %, at 39^{th} week – by 13.88/13.49 %. However, frequencies at 40^{th} week decreased by 16.42/15.43 % in boys/girls respectively, at 41^{st} week – by 2.97/2.08, at 42^{nd} week – about 1 % in both sexes. One way ANOVA revealed significant decrease of GA in both sexes across maternal age and parity groups.

Conclusions. During the 1995–2020 period in Lithuania, the mean GA of singleton, naturally born, term newborns reliably decreased by 2.45 days in boys and 2.03 days – in girls. This decrease resulted from the left shift in the distributions of births according to GA. The possible reasons of this phenomenon will be discussed in the presentation.