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Letter to the Editor

Correction of the sensitivity reported in the 2015 Italian Society of Obstetrical and Gynecological Ecography (SIEOG) guidelines for the ecographic screening of fetal malformations: a meta-analyitic approach

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Dear Editor,

It seems appropriate to communicate that the estimate of the overall sensitivity reported in the current 2015 practice guidelines of the Italian Society of Obstetrical and Gynecological Ecography (SIEOG) [1] is incorrect.

In this Guidelines, on page 26, it is the overall sensitivity of the ecographic screening of fetal malformations, as extracted from European registries of fetal malformations is reported. This value is reported to be 31.0% (95% confidence interval 30.7-31.3) and is calculated by dividing the number of overall malformed cases (24,505) with the overall screened patients (79,067 is the reported number). However, the overall number of screened women is 82,067 (not 79,067), and they do not originate from the same population. National policies and local skills and machines could affect the sensitivity of the screening of the fetal malformations. Therefore, we re-calculated the overall sensitivity by meta-analyzing the proportions of each registry, as reported in the SIEOG guidelines, thereby aimed to assess the heterogeneity as well.

The proportions were encoded according to Lipsey and Wilson [2]. The overall effect size was expressed as a weighted mean of the proportion of fetuses with malformations (sensitivity), with 95% confidence intervals, assuming random model. The Agresti and Coull [3] method was used for calculating intervals, as provided by EpiTool epidemiologicalcalculator(epitools.ausvet.com.au/content.php?page=CIProportion). A sensitive analysis was performed excluding the extremes. The interquartile range limits of the distribution was used to exclude extremes. The overall sensitivity is 33.5% (95% CI 33.1%-33.8%), with I2 of 100%. After sensitive analysis, the I2 decreased to 98%, while the overall sensitivity decreased to 33.0% (95% CI 32.5%-33.5%). Basing of such results, it seems that the "true" sensitivity of the ecographic check of fetal malformations is slightly higher than what is reported in SIEOG guidelines, but it should also underline that very high heterogeneity among registries should push Italian obstetrics to refer to an estimate of sensitivity calculated from its own center, rather than referring to what is reported in the SIEOG Italian Guidelines.

As the sensitivity of ecographic screening of fetal malformation is difficult to verify [4], an estimate sensitivity based on rates of own centers could drive best appropriate counselling.

References

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