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Termination of pregnancy after positive result for fetal anomaly due to second trimester ultrasonography screening: an appraisal

İkinci trimester ultrasonografisine bulunan fetal anomaliye dayanarak gebeliğin sonlandırılması: bir değerlendirme

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Prenatal diagnosis is widely practiced in obstetrics. The main aim of such tests is early detect ion of the fetal anomaly so that proper management can be selected. One of the common diagnostic tools is second trimester ultrasonography screening. This technique has proved to be cost effective. For the positive cases of this screening technique, the termination of pregnancy is an important outcome. The termination of pregnancy depends on several factors including the medical, social and legal factors in each setting. The author hereby appraises the rate of termination of pregnancy after having derived positive results from second trimester ultrasonography screening in published papers from several settings. First, the specific literature search on second trimester ultrasonography screening for fetal anomaly detection was done using standard researching on referencing databases (PubMed, Scopus and SciCitationIndex). The includion is set as any reports published in English. The exclusion is set as any reports that lack complete data on prevalence (positivity) and termination of pregnancy rate. Metanalysis on derived data was done. ANOVA was used for assessing differences among settings. Statistically significant difference was set at P value equal to or less than 0.05

According to this work, there were 8 reports (1-8) on 75264 screenings. The reported prevalence (positivity) ranges from 043% to 3.0% without different among settings. Overall prevalence (positivity) is equal to 1.48%. The reported termination of pregnancy rate ranges from 0.141% to 0.61% without difference among settings. The overall rate of termination of pregnancy is 0.35%. The rate of termination of pregnancy in positive screening cases ranges from 4.8% to 55%, with a significant difference among settings. The author hereby found that the rates of abnormality (positivity) detected by the screening in studies reported are within the same range. In addition, the finalized termination of pregnancy rates also do not differ. However, it can be seen that the rates of termination of pregnancy in positive screened cases are highly variable. This also confirms that the decision on finalized management

of detected fetal anomaly from screening is totally different depending on settings. Although the screening is useful, the finalized usefulness of screening results havemany underlying factors. This is also concordant with the statement of Rasch et al on the effect of the socio-economic situation and country of birth on the termination of pregnancy (9).

References

- Ewigman BG, Crane JP, Frigoletto FD, LeFevre ML, Bain RP, McNellis D. Effect of prenatal ultrasound screening on perinatal outcome. RADIUS Study Group.N Engl J Med. 1993; 329: 821-7.
- Saari-Kemppainen A, Karjalainen O, Yl?stalo P, Heinonen OP. Ultrasound screening and perinatal mortality: controlled trial of systematic one-stage screening in pregnancy. The Helsinki Ultrasound Trial. Lancet. 1990; 336: 387-91.
- Chitty LS, Hunt GH, Moore J, Lobb MO. Effectiveness of routine ultrasonography in detecting fetal structural abnormalities in a low risk population. BMJ. 1991; 303: 1165-9.
- Luck CA. Value of routine ultrasound scanning at 19 weeks: a four year study of 8849 deliveries. BMJ. 1992; 304: 1474-8.
- VanDorsten JP, Hulsey TC, Newman RB, Menard MK. Fetal anomaly detection by second-trimester ultrasonography in a tertiary center. Am J Obstet Gynecol. 1998; 178: 742-9.
- Anderson N, Boswell O, Duff G. Prenatal sonography for the detection of fetal anomalies: results of a prospective study and comparison with prior series. AJR Am J Roentgenol. 1995; 165: 943-50.
- Pitukkijronnakorn S, Chittacharoen A, Jetsawangsri T, Panburana P, Jaovisidha A,Roungsipragarn R, Saropala N, Herabutya Y. The value of mid-trimester routine ultrasonographic screening in antenatal detection of congenital malformations. J Med Assoc Thai. 2009; 92: 748 - 54
- Shirley IM, Bottomley F, Robinson VP. Routine radiographer screening for fetal abnormalities by ultrasound in an unselected low risk population. Br J Radiol. 1992; 65: 564-9.
- Rasch V, Gammeltoft T, Knudsen LB, Tobiassen C, Ginzel A, Kempf L. Induced abortion in Denmark: effect of socio-economic situation and country of birth. Eur J Public Health. 2008; 18: 144-9.