

Screening for fetal aneuploidies in 286243 pregnancies in catalonia

Casals E, Mercadé I, Colmenero A, Escalante A Servei de Bioquímica I Genètica Molecular. Hospital Clínic., Barcelona, Spain

Objective

To evaluate the performance of first-trimester Screening in Catalonia during the years 2010-2016 and to analyze the demographic characteristics of pregnant women in this region.

Methods

A total of 286243 pregnant women underwent combined first trimester screening program in Catalonia from the years 2010 until 2016. Demographic characteristics and their influence on detection rate and false positive rate were evaluated, as correction factors were defined globally in all laboratories.

Results

Demographic study of pregnant women shows statistically higher age (31, 17 years) and percentage of smokers (18, 43%) in Caucasian women and lower weight in Chinese ones (58, 94 Kg). With a false positive rate of 3, 37%, detection rate was 91, 87% for Down syndrome, 92, 94% for Edwards syndrome and 90, 48% for Patau syndrome.

Conclusion

Prenatal screening for aneuploidies in Catalonia shows good results in terms of sensitivity and specificity. Applying correction factors as weight, ethnicity and smoking status are necessary in order to improve the results.