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Diagnostic amniocentesis - results and complications

Marques P, Branco R, Rodrigues ML, Meira de Carvalho M, Ferreira C, Reis L, Fonseca J, Marum M, Cristina Costa A, Nazaré A
Hospital Professor Doutor Fernando Fonseca, Lisboa, Portugal

Objective

Amniocentesis is an invasive technique for withdrawing amniotic fluid from the uterine cavity; the fluid can then be used for various laboratory studies, including prenatal genetic studies. It is an invasive procedure and, as such, there are risks. The major complications are rupture of membranes, fetal injury, infection and fetal loss, the latter being the most feared by couples. It is one of the most commonly used procedures for prenatal diagnosis (PND), but a precise assessment of the risks is difficult, because the rate of complications is affected by several factors. Our goal was to analyse the diagnostic amniocentesis performed at the PND unit of Hospital Professor Doutor Fernando Fonseca (HFF), and evaluate the results and complications of the procedure.

Methods

We conducted a retrospective observational study of diagnostic amniocentesis procedures performed at the HFF PND unit in 2017, using the information contained in the clinical files. Data analysis was performed using Microsoft Excel 2011.

Results

In 2017, 97 diagnostic amniocentesis were performed at our PND unit; 94 were singleton pregnancies and three were twin pregnancies (two of them dichorionic); the average maternal age was 36, 47 years. The most common indications were: maternal age (45, 36%), ultrasound showing morphologic anomalies (24, 74%) and positive first trimester screening (7, 22%). The procedures were performed at a median gestational age of 16 weeks of gestation; there were no amniocentesis performed before 14 weeks or after 33 weeks of gestation. There were no complications registered. The karyotype was normal in 79 cases; out of the abnormal results (18), there were eight cases of aneuploidy, of which four were Down syndrome, two trisomy 18 and two Turner syndrome.

Conclusion

In 2017, at the HFF PND unit, 97 diagnostic amniocentesis were performed. In 18, 56% of cases there was an abnormal karyotype, with a prevalence of aneuploidy of 8, 25% (approximately 4, 12% of Down Syndrome). The loss percentage was 0% below the value that have been registered in literature.