Objective
Autosomal trisomies and triploidies are the most common chromosome abnormalities in humans, and the leading genetic cause of miscarriage. The aim of our study was to determine the parental origin of trisomies and triploidies diagnosed in our center from 2016 to 2019 by quantitative fluorescent polymerase chain reaction (QF-PCR).

Methods
The parental origin of 97 autosomal trisomies and 32 triploidies diagnosed in spontaneous miscarriages or high risk ongoing pregnancies was determined by QF-PCR applied to a fetal sample obtained by chorionic villi sampling or amniocentesis and a maternal saliva sample.

Results
There were 63 (49%) nonviable intrauterine pregnancies (34 trisomies and 29 triploidies), and 66 (51%) ongoing pregnancies (63 trisomies and 3 triploidies) sampled because of a high risk of chromosomal anomalies. Parental origin of triploidies and trisomies is detailed in Table 1.

Conclusion
A maternal origin was the most likely source of the additional chromosome in autosomal trisomies, given that a paternal origin was only observed in a few trisomies 21 and 22. Nevertheless, in triploidies both maternal and paternal origin had a similar frequency, with a slightly higher implication of the paternal provenience.