A case of early recurrent pregnancy loss caused by paternal translocation t(3;8) (q13;q24)

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Objective
To present the implications in early pregnancies of a familial balanced translocation 3;8. Balanced Translocations are structural chromosomal rearrangements that rarely cause problems in carriers, but could cause pregnancy complications. When balanced carriers transmit the rearrangement, it can result in a significant chromosomal imbalance in the offspring.

Methods
This is a case report.

Results
A 25 year-old woman and 29 year-old man were referred to our geneticist because of recurrent pregnancy loss (5 times) at 6-10 weeks of gestation. They have one healthy female child from the first pregnancy. Karyotypes of couple were performed, and the karyotype of man was 46,XY, t(3;8)(q13;q24). The woman had normal karyotype. After 5 miscarriages she had a normal pregnancy with the same balanced translocation as the father has. Recurrent miscarriages could be caused by unbalanced chromosomal aberrations due to balanced parent’s chromosomal rearrangement. In this case a paternal balanced translocation 3;8 was detected.

Conclusion
Recurrent miscarriages could be traumatic for couple. For these cases there is no treatment before conceiving. Preimplantation genetic diagnosis is one possibility in some cases and genetic information is necessary.