

Heterochromatin Variants in Slovak Women with Reproductive Failure

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KEYWORDS Chromosomes. Chromosomal Aberrations. Cytogenetic Analysis. Heterochromatin Variants

ABSTRACT Various studies have reported a higher incidence of heterochromatin variants among individuals with idiopathic reproductive failure. The aim of the present study was to assess the frequency of chromosomal heteromorphisms in 948 women with history of reproductive failure and 478 controls in the Prešov region (Slovakia) (1998-2013) using G-banding and C-banding cytogenetic techniques. In 95 individuals (10.02%) with reproductive failure heterochromatin variants of chromosomes 1, 9, 16 and Y were detected. In the control group, there were 15 (3.15%) heterochromatin variants. The most frequent heterochromatin variants in the reproductive failure group were heterochromatin variants within chromosome 9 (9qh+/9qh-/inv(9)). The overall incidence of heterochromatin variants in women with reproductive failure was higher than in controls ($p < 0.0001$; 95% CI 1.971-5.996). The results of the study confirmed the higher occurrence of chromosome anomalies in Slovak women with reproductive failure that absolutely reasons indication of cytogenetic examination.