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Chromosomal Instability in Recurrent Spontaneous Aborters

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ABSTRACT Association between the acrocentric chromosomes are very obvious in human metaphases. The incidence of acrocentric chromosome association is high in both partners experienced two or more recurrent miscarriages. Acrocentric chromosome associations are highly relevant because most aneuploidic conceptuses results from meiotic nondisjunction during gametogenesis. The altered centromere functions may have an increased risk for chromosomal instability and this leads to spontaneous abortion due to cell division errors. To find out this anomaly blood culture was performed in a series of 50 women with repeated spontaneous abortions and also in their husbands. Out of 100 individuals, a 36 years old man whose wife has experienced two spontaneous abortions was having Acrocentric chromosome association. His wife was normal with 46, XX chromosomal complement. Another 30 years old female experienced three spontaneous abortions was also having Acrocentric Chromosome association. Her husband was normal with 46, XY chromosomal complement. Four probands i.e, one female and three males showed premature centromeric division. The female was 26 years old with two recurrent spontaneous abortions. Her husband was normal with 46, XY chromosomal complement. Other three males are with 31, 33 and 33 years of age respectively. Their wives have experienced 2, 2 and 4 recurrent spontaneous abortions respectively with normal 46, XX chromosomal complement.