

# Placentae of fetuses with chromosome 16 trisomy: A morphometric analysis of the interchange chorionic villi

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We have studied chorionic villi from 38 placentae obtained from spontaneous abortions at 7 to 12 weeks of pregnancy. Samples were separated into four groups: (1) early normal (7-9 weeks of pregnancy, normal karyotype); (2) late normal (10-12 weeks of pregnancy, normal karyotype); (3) early trisomic (7-9 weeks of pregnancy, trisomy 16 karyotype); and (4) late trisomic (10-12 weeks of pregnancy, trisomy 16 karyotype). Villous area trophoblastic area, stromal area and cell density were analysed through morphometric studies in serial sections. These were stained with haematoxylin-eosin-Alcian blue, picrosirius and diastase-periodic acid Schiff techniques. Early trisomic villi were not overtly different from normal karyotype villi. In contrast, late trisomy 16 chorionic villi had a smaller area, and the chorionic mesenchyme showed lower collagen and cell density. The morphological differences in villi described here could suggest an inability to maintain normal rates of proliferation and me