An X, isochromosome X (long arm), 46 chromosomes

Human Genetic Mutant Cell Repository, Camden, N.J., identification No. GM-88

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Cell culture from a skin biopsy from the buttocks of a 19-year-old female with the classic stigmata of Turner's syndrome (webbed neck, valgus of elbows, shield-shaped chest, amenorrhea, etc.). The buccal smear was positive for Barr bodies (18%), and the isochromosome of the long arm of the X was identified by standard technique, autoradiography, and the G-banding urea technique (D. S. Borgaonkar, 1972, unpublished data). This culture, with the chromosome complement 46,X,i(X)(qter→cen→qter), presents a classic picture of an iso-X chromosome abnormality. A trypsin-Giemsa banded karyotype is shown in fig. 1.

The cell culture can be split 1:3 every seven days in McCoy's modified 5a medium and 20% un-inactivated fetal bovine serum. Seed stock is stored in liquid nitrogen in culture medium plus 10% glycerol in tissue-culture passage 4.

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Fig. 1. Trypsin-Giemsa banded karyotype showing the isochromosome X (long arm) of cell culture GM-88: 46,X,i(X)(qter→cen→qter). (Courtesy of Robert C. Miller, Institute for Medical Research, Camden, N.J.)