

Cytogenetic findings in an epithelioid sarcoma with angiomatoid features. A case report

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ABSTRACT. Epithelioid sarcoma is a rare, aggressive soft tissue tumor of unknown histogenesis showing predominantly epithelioid cytomorphology. We conducted a conventional and molecular cytogenetic study of a 27-year-old male with epithelioid sarcoma with angiomatoid features. Cytogenetic analysis of epithelioid sarcoma metaphase spreads by GTG-banding revealed a diploid chromosome complement with structural and numerical aberrations. Comparative genomic hybridization analysis demonstrated the amplification of 3p24~pter, 4p15.2-p16 and 18q23, while chromosome losses involved 3p13-p14, 3q24-q26.1, 9q21, and 11q21. Fluorescence *in situ* hybridization assessment showed normal hybridization patterns for the *C-MYC* and *CCND1* loci; *CCND1* RNA overexpression was detected

by real-time polymerase chain reaction analysis. Genetic evaluation of this rare condition may be useful in determining if epithelioid sarcoma is associated with a distinct genetic background.

Key words: Cytogenetics; Epithelioid sarcoma; Cancer; Angiomatoid features