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

M.S. Brassesco¹, E.T. Valera¹, A.M. Castro-Gamero², D.A. Moreno³, T.P. Silveira³, B.M. Mori¹, E.E. Engel⁴, C.A. Scrideli¹ and L.G. Tone¹

¹Departamento de Puericultura e Pediatria, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brasil
²Departamento de Genética, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brasil
³Departamento de Patologia, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brasil
⁴Divisão de Ortopedia e Traumatologia, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brasil

Corresponding author: M.S. Brassesco
E-mail: marsol@rge.fmrp.usp.br/solbrassesco@hotmail.com

Received July 10, 2009
Accepted August 8, 2009
Published October 6, 2009

ABSTRACT. Epithelioid sarcoma is a rare, aggressive soft tissue tumor of unknown histogenesis showing predominantly epithelioid cytomorphology. We conducted a conventional and molecular cyto genetic 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