

Soft tissue tumors: Malignant Myoepithelioma

Clinics and Pathology

Disease In the recent WHO classification of tumors of soft tissue and bone, myoepithelioma is considered to be part of a spectrum that also embraces mixed tumor and parachordoma. Soft tissue myoepithelioma is a rare tumor displaying myoepithelial elements within a hyalinized to chondromyxoid stroma and lacking obvious ductal differentiation. The histogenesis is unclear and most are benign, but some behave in a malignant fashion.

Cytogenetics

Note To date there are no cytogenetic data on soft tissue myoepithelioma as such except for one case: the stemline is described as 82,XXYY,+Y,-1,add(1)(p13),-3,del(3)(p21),-4,del(4)(q27q31),del(5)(q11q34),-6,-6,add(7)(p21), der(9)t(1;9)(q25;p22) or (q31;p23)x2,+der(9)t(9;9)(p13;q22),-10,-11,-13,-14,-18,-21,-22[4] and the sideline as 86,idem,+7,+8,+9,-der(9)t(9;9),+15,i(20)(q10),+21,add(22)(p1)[4]. This case shares some cytogenetic aberrations described in pleiomorphic adenomas of the salivary gland and basal cell (myoepithelial) adenocarcinoma of the lung especially rearrangements of chromosome 1 and 9 and some numerical chromosomal aberrations mentioned in [chordomas](#), especially losses of chromosomes 3, 4, and to a lesser extent, 10 and 13. These cytogenetic aberrations seem unrelated to previously reported chromosome changes usually seen in closely related entities like parachordoma and intramuscular mixed tumor in which cases mostly loss of material from the short arm of chromosome 17 was detected.

It might be that soft tissue myoepithelioma is a distinct entity with some resemblance to (para)-chordoma on the one hand and myoepithelioma on the other.

It was recently observed that benign human myoepithelial tumors of diverse sources exhibit common mRNA expression profiles indicative of a tumor-suppressor phenotype.

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Contributor(s)

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