



P7:110

Ewing's sarcoma- regression grade I, but viable pulmonary tumor embolus. A case report.

Daniela Hirzberger¹, Koppany Bodo¹, Martin Benesch¹, Jörg Friesenbichler¹, Andreas Leithner¹

¹Medical University of Graz, Austria

Introduction:

According to the literature, a regression grade I after neoadjuvant chemotherapy for Ewing's sarcoma has a strong correlation with a better survival rate. Nevertheless, even in this group metastases occasionally occur. We report a unique case of a 16-year-old male patient with a viable pulmonary tumor embolus despite a regression grade I after chemotherapy and resection of a Ewing's sarcoma of the chest wall (Askin's tumor).

Case presentation:

At diagnosis, the Ewing's sarcoma showed a size of 7x5.9x6.9 cm in the MRI. The patient received six cycles of induction chemotherapy according to EWING 2008 protocol, leading to a massive reduction in tumor size (3.3 x 1.8 x 2.8 cm) in the MRI, followed by a wide resection of the tumor. During surgery, the surgeon felt a part of suspicious coarse consistency in the pulmonary lower lobe with less than 1 mm in diameter that he removed too. The histological examination of the surgical specimen of the thoracic wall revealed that there was no viable tumor tissue, according to regression grade I after Salzer- Kuntschik. But in the resected lung specimen, a small arterial vessel with a microscopic accumulation of viable immature, highly atypical cells in the lumen was found. Based on immunohistochemistry (FISH did not work) the diagnosis of a tumor embolism with vital Ewing's sarcoma cells was made.

Discussion:

This puzzling finding led us to the question, how tumor cells could survive despite the excellent response of the primary tumor to chemotherapy. We speculate that a different microenvironment could be a possible cause. Other similar observations could lead to a better understanding of the tumor's metastatic potential.

E-mail (main author): daniela.hirzberger@stud.medunigraz.at