NUT carcinoma of the thorax: Case report and review of the literature.

NUT (nuclear protein in testis) carcinomas are exceedingly rare neoplasms with specific molecular alterations and often follow a devastating course. Thus, a precise early diagnosis is of utmost importance. Known from the sinonasal region for years, the new 2015 WHO classification now also recognizes the existence of this entity in the thorax, specifically the lungs and the mediastinum. However, yet available data on this entity are sparse. Here, we report on a 31 years old female patient with an aggressively growing tumor localized in the median line that was initially sampled by endobronchial ultrasound-guided transbronchial biopsies. Pathological assessment of the biopsy specimens revealed a NUT carcinoma with typical morphological characteristics and an uncommon NUT translocation variant with a NSD3-NUT fusion. Diagnosis was further confirmed in the subsequent resection specimen. We describe specific clinical, histomorphological, and molecular characteristics of this tumor and provide a comprehensive review of the current literature on these rare neoplasms.