

AB004. Basaloid carcinoma of the thymus: experience of the RYTHMIC network over an 8-year period

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Background: Basaloid carcinoma of the thymus is a well-defined but rare entity. The French RYTHMIC network is dedicated to the management of patients with thymic epithelial tumors, organizing an expert review for each included case.

Methods: To study basaloid carcinoma of the thymus, we selected all RYTHMIC diagnoses comprising “basaloid carcinoma” in the conclusion for panel reviewing.

Results: Between 2013 and 2022, 17 cases were identified. However, 4 large biopsies were discarded (3 poorly differentiated squamous cell carcinomas and 1 composite tumor with a chondroid blastematos component) and 2 small biopsies because of uncertainty of sufficient basaloid feature. In total, the panel retained 11 patients (9 tumor resection, 1 surgical biopsy and 1 needle biopsy), with 64% of males (n=7) and 36% of females (n=4), mean age at diagnosis was 70 [standard deviation (SD) =11, range: 46–82]. Among them, 4/8 were UICC stage I, 1 IIIa, 1 IVa and 2 IVb. Resections were qualified R0 for 6/7 and R1 for 1/7. Two patients metastatic at presentation were alive, with a follow-up of 7 and 8 years. Microscopically, all 11 tumors showed a basophilic appearance; 54% (n=6) contained comedonecrosis, and keratinisation was observed in only 1 case. 8 cases showed peripheral palisading. Cystic changes were observed in 6 cases (54%), with 5 with a “cystic papillary pattern”. In all 11 tumors, the nucleo-cytoplasmic ratio was high and the nucleolus was distinct (7 cases with a small one, 1 medium and 3 large). Seven lesions presented with a high number of mitoses, and the mean Ki67 index on the hotspot was 35% (SD =16). Immunohistochemically, 9/9 tumors expressed p40 (or p63), 10/10 CK5/6, 10/11 CD5, 7/8 CD117, 0/11 NUT, 1/11 chromogranin A (very weak and focal), 2/11 synaptophysin (<50% of tumor cells), 4/11 CD56. During the studied period, we reviewed 1,645 thymic epithelial tumors, the incidence of basaloid carcinoma being 0.7%.

Conclusions: Basaloid carcinoma of the thymus is a challenging diagnosis to make, especially on needle biopsy. Comedonecrosis, cystic papillary pattern as well as coexpression of CD5 and CD117 are important features. Despite a high proliferative index, long survival is observed even when metastatic at presentation.

Keywords: Basaloid carcinoma; thymic epithelial tumor; thymic carcinoma; diagnosis

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Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://med.amegroups.com/article/view/10.21037/med-23-ab004/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the national ethics board of RYTHMIC (n° DC-2021-4624) and individual consent for this retrospective analysis was waived.

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