## AB054. PS02.18: Thymic epithelial tumours and additional malignancies: an unresolved enigma

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Background: Recent literature data have confirmed a rate of about 17% of second malignancies in patients with thymoma. Most cases of second malignancies appear metachronously. Adenocarcinomas of the gastrointestinal tract and thyroid cancers are detected most frequently. A precise pathogenic mechanism linking thymoma to an increased incidence of cancer remains unclear, although the finding of multiple malignancies in the same patient including often a haematological neoplasm, has brought to assume a direct role of the T-lymphocytes stimulated by the thymoma epithelium in the genesis of other cancers. However, according to our knowledge, no association between the development of further neoplasms, the presence or not of parathymic immunological disorders and the histological subtypes has been found and, although cytogenetic abnormalities have been reported in thymoma, no molecular or cytogenetic mechanisms adequately explain the tendency of thymoma patients to acquire additional neoplasms.

Methods: Data from 140 patients with thymoma referred to our Institution during a 15-year period, were retrospectively analysed. Clinical features and outcomes of patients with additional malignancies were described.



Results: Twelve patients with additional malignancies were identified (8.5%). With a median age of 48 years (21-66 years) and a male/female ratio of 7/5, all the patients underwent radical thymomectomy for resectable disease, and sequent follow up, since no further treatment were needed and no relapses were detected. A synchronous distinct primary neoplasm diagnosis was made in four cases (cervical squamous carcinoma, testicular germinal tumours, Non-Hodgkin lymphoma, metastatic breast cancer). In six cases the secondary cancers were identified after thymoma. Two patients had multiple malignancies, one of them with four metachronous diagnosis of cervical squamous carcinoma, renal clear cell carcinoma, thyroid cancer and chronic myeloid leukaemia. The most common additional malignancies in this series were breast, genito-urinary and haematological cancer. No patients died for thymoma, two patients died for the metastatic spreading of the secondary neoplasm, breast and prostate cancer respectively, and one patient affected by Good syndrome died for sepsis.

**Conclusions:** In our series we recorded a lower rate of additional cancers than that reported in literature. Confirming the haematological malignancies as the most common in thymoma patients, no evidence of secondary cancer has been found in patients with advanced unresectable thymoma. Thus we assume a proper surveillance to early detect any other cancers also in patients with resected thymic tumor.

**Keywords:** Surveillance; multiple cancers; additional malignancies; resected thymoma

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