Epidemiology of tumors and tumor like lesions of the upper extremity in the Greek population. A 20-Years study from a single national Hand and Upper extremity surgical department.

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Objective: Epidemiological studies considering upper limb neoplasms are few in the current literature. The aim of this study is to report the frequency of upper limb tumors in the Greek population and create a data base for future analysis.

Methods: We retrospectively reviewed the medical archives of Microsurgery, Hand and Upper extremity Department (General Hospital KAT, Athens, Greece), considering patients who were operated for tumor and tumor like lesions between 1995 and 2015. Patients were reviewed for demographic data, type of tumor, affected area and recurrence.

Results: 1102 patients were operated during a period of 20 years, of whom 605 (54,9 %) were females and 497 (45,1%) were male. Mean age was 46,9. The right side was mostly affected (595 patients, 54%) on both sexes (259 males, 336 females). Lesions were mostly presented during the 6th decade of life (240 patients, 21,8%), followed by the 5th (218 patients, 19,8%) and 4th (192 patients, 17,4%).

Considering the anatomical area, the index finder (224 patients, 20,3%) was most affected, followed by the palm area (177 patients, 16,1%), the middle finger (148 patients, 13,4%), the thumb (107 patients, 9,7%) and the ring finger (100 patients, 9,1%). The clavicle (2 patients, 0,1%) and the scapula (6 patients, 0,55%) are rarely involved.

Bone tumors were detected in 136 patients (12,3%), while soft tissue tumors involved the majority of cases (966 patients, 87,7%). There is predominance for benign tumors (1046 patients, 94,9%) to malignant (56 patients, 5,1%) in the Greek population. Giant cell tumor (GCT) of sheath is the most common neoplasm in Greek patients (316 patients, 28,7%) followed by lipoma (103 patients, 9,3%), hemangioma (70 patients, 6,4%), epidermoid cyst (67 patients, 6,1%), gaggion (64 patients, 5,8%) and enchondroma (61 patients, 5,5%).

Discussion: Tumor and tumor like lesions are generally rare in the upper limb. They involve usually women rather than men, when considering the Greek population. Right upper extremity is more involved and in most cases is considered of benign origin. Hand area is mostly involved, while the shoulder girdle is rarely affected. Soft tissue tumors, such as giant cell tumor of the sheath and lipoma, are covering the majority of cases.