

HISTOMORPHOLOGIC REACTION PATTERNS IN CERVICAL LYMPH NODES OF DIFFERENT NECK SITES*

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ABSTRACT

Immunologically based studies of host-tumor interactions have gained popularity in head and neck oncology and histopathological determination of lymph node reactivity has been shown to correlate with survival. However, little is known about lymph node reaction patterns in the "normal" neck. In a prospective histomorphologic study 1024 cervical lymph nodes (CLN) were dissected from 25 selected cadavers at autopsy free of head and neck disease. To investigate regional differences of immune reactivity, these lymph nodes were grouped according to neck levels. 242 CLN groups of 50 neck sites were microscopically classified into one of four distinct histomorphologic immune reaction patterns (RP). 14.5% of CLN groups showed lymphocyte predominance (RP 1), 12% showed germinal center predominance (RP 2), 63.2% were unstimulated (RP 3) and 10.3% displayed regressive changes (RP 4). Distribution of RP was highly significant according to neck level ($p < 0.001$): RP 1 and RP 2 were common in the submandibular (Level I) and the upper parajugular groups (Level II) whereas RP 4 was more typical in the inferior parajugular groups (Level IV) and posterior triangle (Level V). RP 2 and RP 4 showed significant correlation to age and general condition. These findings suggest that tumor independent lymph node reactivity related to neck site, age and general condition of the patient needs to be differentiated from tumor induced patterns in future morphologic investigations of cervical lymph nodes in patients with head and neck carcinoma.
