LYMPHOCYTES SUBSETS BEFORE AND AFTER NEOADJUVANT POLYCHEMOTHERAPY FOR HEAD AND NECK CANCERS.

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Generation of cytotoxic cells has been observed in animal systems and in humans after administration of selected single drugs (adriamycin, melphalan, cyclophosphamide, mitomycin C).

We searched for such a phenomenon in a serie of 64 head and neck cancer patients previously untreated and receiving a polychemotherapy prior to radiation therapy or surgery. Subpopulations of peripheral blood lymphocytes were analyzed by flow cytometry and monoclonal antibodies.

Significant changes were observed among lymphocytes subsets determined before and soon after chemotherapy. Increase of T lymphocytes (6% for CD2+; 15% for CD4+; 10% for CD3+ DR-; 24% for CD3+ DR+) contrasts with marked depletion of B cells (40% for CD3- DR+) and null cells (26% for CD3- DR-).

A full course of neoadjuvant polychemotherapy combining other agents than previously reported (bleomycin, etoposide, cis-platinum, fluorouracil and ifosfamide) seems to amplify anti-tumour effector cells. The lymphocyte depopulation is restricted to humoral immunity (B cells) and also affects a cellular category known to exert suppressor function (null cells).

More cases are nevertheless needed to eventually correlate changes in lymphocyte subsets with the degree of reduction of tumour burden induced by the neoadjuvant treatment.