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IMMUNOLOGICAL CAPACITY IN MALIGNANCY: BASIC AND CLINICAL STUDIES ON H-3 THYMIDINE INCORPORATION INTO LYMPHOCYTE USING LECTIN.

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Mononuclear cells were obtained from heparinized human blood. As a preliminary experiment, H-3 thymidine incorporation using PHA or Con A was measured changing number of the lymphocytes, time of culture, etc.  $1 \times 10^5$  lymphocytes were cultured in a microplate-well for 72 hours with PHA or Con A, then H-3 thymidine was added 18 hours before harvesting. Mean of absolute count in lymphocytes using PHA in 27 normals was 34272 DPM and that of stimulation index was 52.5. Mean values of these parameters were decreased in 10 patients with lung cancer and 4 malignant lymphomas, whereas those were increased in 5 infectious diseases. Mean absolute count using Con A in 27 normals was 7626 DPM and that of stimulation index was 14.6. Mean values of these parameters were decreased in patients with lung cancer, malignant lymphoma and esophagus cancer (4). Lymphocyte response was also measured before and during radiation therapy. The response in many patients, (7/11 in PHA, 6/10 in Con A) was depressed during the therapy. Chemotherapy (ADM, MMC and Futraful, MFC or VEMP) decreased the response by PHA and Con A in all 3 patients and 2/3 patients, respectively.

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