

PREDICTION OF RESPONSE OF HEAD AND NECK CANCERS TO
NEOADJUVANT CHEMOTHERAPY.

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In head and neck cancers, the response to neoadjuvant chemotherapy has a prognostic importance. Radiotherapy result is also correlated to chemosensitivity. A 3/4 tumour reduction ("major response") was shown to be critical(*). Prediction of such an effect would help to optimization of treatment aiming at cure with organ preservation.

A low dose combination of bleomycin, cis-platinum, etoposide, fluorouracile and ifosfamide was given in neoadjuvant setting to 258 consecutive patients. A 70% response rate (complete response and partial response more than 50%) has been obtained. Major response occurred in 26% of cases.

Logistic discriminant analysis pointed out "N", "T" and "SITE" as concurrent significant parameters of chemotherapy effect. An algorithm was constructed giving a prognostic index and a corresponding probability of major response for each clinical situation. The model was tested prospectively in 97 further patients. According to cutoff levels of predictive scores, subgroups can be identified whose major response rates proved as high as 80% or as low as 13% whereas the major response rate of the whole serie amounted to 34%.

Our model may help to choose appropriate treatment for defined patients subsets at the very time of the staging.

(*) ibidem: 2nd and 3rd Intern. Congr. Neoadj. Chem., Paris, 1988 and 1991.