

## SPLIT-COURSE IRRADIATION OF LARYNX CARCINOMA : LONG TERM RESULTS AND TOLERANCE.

Our survey consists of 201 male patients, aged 34 to 81. There were 86 glottic tumours (mainly 50 T1 and 23 T2) and 115 supraglottic cancers (including 16 T3 and 44 T4). 18 patients required tracheotomy prior to admission, 21 had clinical node involvement, 5 metastases, 8 previous or concomitant second cancer. Squamous cell carcinoma was present in 191 cases and 10 glottic tumours were of borderline histology. The minimum follow-up period is 3 years.

Our original fractionation consists of two irradiation periods separated by a 15 days interval; each sequence comprises 6 fractions over 2 weeks. The tumour dose per fraction amounts to 4 Grays, the total dose equals 48 Grays (TDF 103). The irradiation was delivered by gamma rays of cobalt; treatment parameters were those in current use. A salvage surgery took place in 21 patients.

The crude five years survival amounts to 51% for the whole series and to 67% if corrected for patients dead of proven intercurrent disease with tumour control. Cure rates of vocal cords cancer are respectively 68% for T1 (87% corrected), 50% for T2 (78% corrected), 36% for T3 + T4 (46% corrected). Patients with limited supraglottic tumours (T1 + T2) survived in 50% of cases (69% corrected) and those with extensive tumours (T3 + T4) in 30% of cases (43% corrected).

Analysis of several parameters has shown that tolerance was far better than for hypofractionation alone and even compared well with conventional irradiation. Acute side-effects (mucositis and dysphagia) remained quite acceptable and the patient compliance amounted to 99.5%. Occurrence of laryngeal edema, muscular fibrosis, cartilaginous and cutaneous sequelae and the rate of post-operative pharyngostomy indicate that the late complications were unfrequent as compared to historical controls.

A lesser staff occupation, a better output of treatment machine as well as a reduction of patients travelling and hospital staying also confer to our method valuable economic and social advantages.