



## ARGUMENTS IN FAVOUR OF A CONSEQUENTIAL COMPONENT IN LATE EFFECTS AMONG IRRADIATED LARYNGEAL CANCER PATIENTS.

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### INTRODUCTION

An optimal therapeutic ratio requires maximal tumour control with minimal late effects on normal tissues. Several research programs aim at quantifying radio-induced sequelae and elucidating their mechanisms. Most of them have determinants different from those of acute reactions occurring at the very end of treatment. Nevertheless, recent reports described a component of late effects in close relationship with immediate tolerance, named as consequential late effect (CLE).

### OBJECTIVE

Late effects have previously been quantified with the SOMA (Subjective, Objective, Management and Analytic) scale (PIRET IJRO 45, 277, 1999) in more than 100 patients treated for a laryngeal cancer and subsets individualized according to LENT scores. The possible existence of a CLE was investigated among this population.

### METHODS

Early reactions to radiotherapy (63 Grays biologically equivalent dose) were quantified with the Acute Toxicity Scale (DAHANCA). Scoring was made at the end of treatment as well as 1 month and 2 months later. Comparison of mean values intervened between patients groups presenting complications (positive LENT score) and symptoms free patients (nul LENT score).

### RESULTS

At the end of radiotherapy, Acute Toxicity Scores (ATS) didn't differ between patients with or without late effects. One month later, patients prone to develop complications had a mean ATS of 0.933 instead of 0.356 ( $p = 0.007$ ). At two months follow-up, the difference was still more significant: 1.289 compared to 0.333 ( $p = 0.0002$ ). Considering a mean ATS value calculated over the 3 testings, 1.212 is opposed to 0.716 ( $p = 0.005$ ).

### CONCLUSION

These preliminary results which have to be confirmed on a larger scale seem to bring arguments in favour of a consequential component in late effects observed among irradiated laryngeal cancer patients. One should perhaps pay more attention in reducing acute reactions as best as possible in the view of increasing quality of cure.