Factsheet for the Press (RTT)

IS THERE A CORRELATION BETWEEN SMOKING AND LATE SIDE EFFECTS IN PATIENTS UNDERGOING RADIOTHERAPY TREATMENT FOR HEAD AND NECK CANCER?

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Context: In 2006, 937 new cases of head and neck cancer (cancer in the larynx, throat and the oral cavity) were registered in Denmark, many of which are treated with radiotherapy. In this study, 795 patients are included of which 92% are smokers or newly quitters. 60% quit smoking during treatment but 1/3 of them resumed smoking after the end of treatment. Every head and neck cancer patient treated with radiotherapy gets side effects of varying severity, but we do not know whether smoking has an influence on the type and/or severity of these side effects or not. In this study, we have looked into six of the most commonly occurring side effects, and their presence and severity 6 and 12 months after the end of treatment for smoking, presently non-smoking and never-smoking patients respectively.

Purpose: The aim of the study was to investigate whether smoking has an influence on the severity of the side effects after radiotherapy, and to what extent smoking cessation during treatment has a beneficial effect on the side effects.

Findings:

1. We have found a significant correlation between smoking at the beginning of treatment and difficulties in swallowing and oedema of the mucosa 12 months after end of treatment.
2. We also found a significant correlation between daily tobacco use and the number of moderate to severe side effects.
3. Also, quitting smoking during treatment results in a significant reduction in the probability for experiencing problems with hoarseness/loss of voice and oedema of the mucosa after 6 months.

Impact: We have shown that smoking cessation before or during treatment will have a positive effect on the severity and amount of side effects. 31% of the smokers have moderate to severe problems with swallowing after 12 months compared to only 10% of the non-smokers and 20% of the ex-smokers. Moderate to severe oedema of the mucosa decreased from 10% to 5% from the 6 to 12 month follow-up for the non-smokers, but for the smokers, it only decreased from 25% to 22%. These findings provide figures to back up our advice that patients should stop smoking, and emphasize the importance of supporting patients in quitting smoking before the beginning of treatment and providing support to maintain their smoking cessation.