

LETTER TO THE EDITOR

'Increased incidence of secondary tumours in thyroid cancer patients': a fact or a sophism?

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In the paper by Robbert B T Verkooijen *et al.* (1), they described an increased incidence of second primary tumours (SPTs) in thyroid cancer patients. They found no association with iodine-131 (I-131) treatment of differentiated thyroid cancer (DTC), but surmised a common aetiology and/or genetic mechanism causing the observed increased prevalence of SPTs, especially breast cancer, in thyroid cancer patients. In concluding, they recommended close clinical follow-up for early diagnosis of SPTs in patients with DTC.

The astonishing results and conclusions of Verkooijen *et al.* prompted us to search our own database; it contained 1087 patients (73% females, 27% males) with the diagnosis of thyroid cancer. The follow-up period ranged between a minimum of 1 year and a maximum of 30 years (mean 7 ± 5 years); the mean age of the patients was 51 ± 16 years and 103 patients had passed away. Therapeutic doses of I-131 had been given to 933 patients, and 154 had very small primary lesions of DTC with a very low risk of tumour recurrence, and therefore received no I-131 therapy. We included patients with medullary carcinoma in our analysis, in contrast to Verkooijen *et al.*, but otherwise age, gender distribution, histopathology, ablation doses and time points of treatment were comparable with the group reported by Verkooijen *et al.* In our group, we found 125 additional SPTs in 112 patients (11 patients had three tumours, 1 patient had four tumours), yielding a percentage of 11.5% vs 14.2% (40 out of 282 patients). Fifty-five tumours had occurred several years prior to the diagnosis of DTC (mean 8.4 years). Thus, our data analysis ultimately revealed 5% of patients who had developed an SPT (following the diagnosis of DTC and treatment) when compared with 7% of those reported by Verkooijen *et al.* These data are in accordance with others, such as Bhattacharyya *et al.* and Canchola *et al.* (2, 3).

Verkooijen *et al.* reported a significantly increased standardized incidence ratio (SIR 3.95) for SPTs only when patients with breast cancer before thyroid cancer were included; their SIR for SPTs following DTC overall was 1.13, which is nearly the same as our value of 1.06. Sadetzki *et al.* (4) found an elevated risk in women with breast cancers for DTCs. Cengiz *et al.* (5) also observed

an increased frequency of thyroid diseases in breast cancer patients.

We do not consider it justified to postulate closer routine clinical follow-up than is practiced in thyroid cancer patients today, for the reasons that: first, the data presented do not justify it; secondly, it would cause more anxious concern among patients with DTC; and thirdly, it would increase the burden on the resources of medical care in general. At the present time, the algorithm of long-term follow-up of thyroid cancer patients does not include routine screening for breast or prostate cancer or other types of malignancy. We do think, however – and wish to emphasize – that whilst treating (and following) patients, the incidence of diseases other than the one at hand must be kept in mind and looked for. Looking for zebras when treating horses is beyond the scope of the endeavour, and most likely will confer no benefit on our patients.

Whereas Verkooijen *et al.* emphasize a need to search for SPTs, especially breast cancer, in patients after DTC, we – in contrast – think it is the other way around, i.e. we argue – on the basis of the presented data as well as other studies – for the search for thyroid malignancy in all women with a history of mammary carcinoma, i.e. include thyroid sonography in the routine follow-up after surgical intervention for mammary carcinoma.

References

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