

Leserbrief

Diagnosis and treatment of differentiated thyroid cancer: «One should not just write what one believes»

Leserbrief zu Schneider. et al. Diagnose und Therapie des differenzierten Schilddrüsenkarzinoms. Swiss Med Forum. 2014;14(9):171–6.

Schneider and colleagues reviewed the management of differentiated thyroid carcinoma (DTC). We felt that we have to report where we respectfully disagree with the Authors on several points.

Diagnosis

While nuclear medicine techniques were not mentioned at all thyroid scan with $^{99m}\text{TcO}_4^-$ or ^{123}I is the only examination able to prove thyroid autonomy, which excludes malignancy with a very high negative predictive value. Accordingly, patients with thyroid nodules >10 mm and subnormal TSH (note: independently from TSH in countries with iodine deficiency) must be referred to thyroid scan. Finally, patients with cytologically indeterminate nodules should be referred to ^{123}I scan to exclude malignancy. In addition, thyroid scan with ^{99m}Tc -MIBI is able to avoid unnecessary surgical procedures, as confirmed by a large literature including meta-analysis and cost-effectiveness studies.

Post-surgical radioiodine ablation

We certainly agree that it is possible to omit ^{131}I ablation in low-risk DTC (<10 mm) that had excellent surgery. However, clinical guidelines significantly diverged in other cases: the more restrictive are ATA guidelines; however, recommendations against ablation are graded at C or even I level of evidence. As a consequence until results of ongoing controlled prospective randomized trials become available, ^{131}I ablation of remnant thyroid tissue remains advisable in most DTC patients.

Follow-up

We agree that whole body scan (WBS) may be omitted in low-risk patients with undetectable Tg and negative

neck US. However, even the “restrictive” ATA guidelines stated that WBS should be systematically performed once in patients with intermediate and high-risk DTC, extra-thyroid uptake at post-treatment scan or patients with positive Tg autoantibody. Furthermore, WBS is still of value in patients with increasing serum Tg and/or Tg autoantibody after ablation.

Risks and side effects

The Authors cited the study of Kim et al. that reported an increased risk of ^{131}I -related second tumors also for thyroid microcarcinomas in their paper. A careful inspection of Table 3 of the Kim’s papers reveals that all considered tumors, with the exception of leukemia and non-Hodgkin lymphomas, are significantly increased in patients treated only surgically. Therefore, the “generalized” increased incidence of second tumors is more likely due to factors other than ^{131}I ablation. Additionally, second tumors diagnosed in the first 2 to 3 years (i.e. latency of the radiation-induced oncogenesis) after the diagnosis of DTC were not excluded. All in all, a prospective randomized trial comparing patients treated with or without ^{131}I is necessary to prove the putative increased risk of cancer.

Conclusion

For future articles on these topics we strongly encourage a multidisciplinary authorship as this may help to provide a more balanced opinion on the management of DTC patients.

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References available on request.