Reviewer's report

Title: Simultaneous medullary and papillary thyroid cancer: description of two cases

Version: 2 Date: 10 May 2007

Reviewer: Michael Brauckhoff

I am familiar with the literature and believe that this case meets one of the 7 criteria for evaluation in the journal: Unexpected or unusual presentations of a disease

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: No

Comments to authors:

General

In the presented paper, the authors reported two patients with concomitant occurrence of PTC und MTC. In the first patient, PTC presented with lymph node metastases, but MTC did not. In a third nodule a mixed tumor presenting with features of PTC and MTC was detected.

In particular, case 1 is, of course, of high interest. However, the paper is poorly written and is not recommended for publication in its present form.

Revisions necessary for publication

Abstract

The information provided in the Background section is nonsense. What do the authors mean: same thyroid gland or same thyroid lobe? Case 2 is poorly described. In the Conclusion the authors write “the question is”. However, what is missing in this section is a conclusion.

Introduction

The introduction is poor. A short description of the present knowledge of the tumorigenesis of MTC and PTC should be given. What was the aim of the study/case report?

Case presentations

Case 1: Did the authors perform pentagastrin testing pre- and/or postoperatively? Was immunhistochemical examination performed in the isthmus nodule? The tumor categories (TNM) should be given (e.g. for MTC pT2m?N0 or pT3m?N0, for PTC pT1m?N1). Did the patient undergo a radioiodine treatment? Which exons/codons were examined during RET analysis? What exactly were the TG and Calcitonin levels during at follow up? Were the specimen genetically examined (ret/PTC translocation)? Did the patient undergo an external radiation therapy previously?

Case 2: What do the authors mean with “ipo echoic”? How exactly were the TG and Calcitonin levels during at follow up? Why was a MIBG scintigraphy perfomed? Was RET analysis performed? The tumor categories should be given.

Discussion

The authors should discuss the ret/PTC translocation in a more straight forwarded manner. The association
of PTC in MEN 2 patients should also be discussed (Decker R et al., 1993; Feldman GL et al., 2000; Brauckhoff M et al., 2003). What are the clinical consequences of the presented cases? The authors should explain why they did not perform a genetic examination of the specimen.

**What next?:** Revise and resubmit

**Quality of written English:** Not suitable for publication unless extensively edited