Letter to the Editor

Reply to Drs. Machens and Dralle

Dear Sir;

We thank Drs. Machens and Dralle for their comments [1] on our recent article in Endocrine Journal [2]. They advocate parathyroid gland preservation in situ at the time of total thyroidectomy with lymph node dissection for medullary thyroid carcinoma in patients with adult MEN2A. Even after preservation in situ, extirpation of a single parathyroid gland is achieved at minimal surgical morbidity in experienced hands. On the other hand, if hyperparathyroidism occurs due to enlargement of the autotransplanted gland, they propose that the entire autotransplanted tissue removal becomes necessary.

In our series, we have not experienced hyperparathyroidism after total parathyroidectomy and autotransplantation in patients with MEN2A. We agree that it will be difficult to remove the pathological parathyroid tissue only from the forearm transplanted site, if hyperparathyroidism occurs due to hyperplastic changes in the autotransplanted tissue. Wells SA *et al.* reported five patients with graft dependent hypercalcemia, and achieved normocalcemia by partial graft resection, which consisted of approximately half of the transplanted parathyroid tissue removal [3].

As Drs. Machens and Dralle have pointed out, hyperparathyroidism in MEN2A is usually mild. We are not concerned about the occurrence of hyperparathyroidism after total parathyroidectomy and autotransplantation, but are concerned for recurrence of medullary thyroid carcinoma. Drs. Gimm and Dralle have previously reported reoperation in metastasizing medullary thyroid carcinoma [4]. Microdissection of four compartments of cervical and mediastinal lymph

nodes were performed in 36 medullary thyroid carcinoma including 5 MEN patients. Permanent hypoparathyroidism occurred in 9 (25%) even by experienced hands. In adult MEN2A patients, the risk of reoperation will be higher for recurrence of medullary thyroid carcinoma rather than for the occurrence of hyperparathyroidism. When total thyroidectomy with bilateral central compartment lymph node dissection is performed, it is almost impossible to preserve lower parathyroid glands in situ. In this context, at least one or two parathyroid glands are transplanted to either the forearm or cervical muscle, and the risk of hyperparathyroidism at the site of transplantation is same. Total parathyroidectomy and autotransplantation helps to avoid hypoparathyroidism in cases of neck reoperation for recurrent medullary thyroid carcinoma.

Drs Machens and Dralle and others reported the relationship between RET germline mutations and hyperparathyroidism [5, 6]. In future, for RET mutation carriers, total parathyroidectomy and autotransplantation may be restricted only for the patients who have mutation-based high risk profiles of developing HPT. However, at present we advocate total parathyroidectomy with autotransplantation at the time of total thyroidectomy with bilateral paratracheal lymph node dissection in patients with adult MEN2A patients, but not for RET carriers during prophylactic thyroidectomy.

Once again, we wish to thank Drs Machens and Dralle for their excellent review of our article. We hope that our response addresses these issues adequately.

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