When locoregional recurrences (LRR) in papillary thyroid carcinoma (PTC) can be repeatedly eliminated by ultrasound-guided percutaneous ethanol ablation (UPEA) and appropriate use of dermatologic surgery, cervical skin metastases (SM) in low-risk PTC (LRPTC) can be associated with an excellent long-term prognosis.

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Prognostic Groups in PTC

- AJCC 8th edition
- MACIS Scores

Clinical Case Part I: From Presentation with Neck Nodal Mass to 4 Years Post-op

- 2004: M48 after open bx for PTC had near-total thyroidectomy and neck nodal dissection
- 8mm primary tumor, 2 ipsilateral nodes; risk-categories: MACIS 4.08, TNM stage I (8th ed)
- Subsequent 2 RAI doses (total dose 12,506 MBq) resulting in negative whole body scans
- 2007: abnormal neck imaging led to neck dissection for resulting in negative whole body scans
- 2008: Referred to Mayo for consideration of ethanol ablation of persistent neck nodal mets
- 2 separate nodes ablated, shrunken, avascular and subsequently disappeared on neck US
- 2010-2016: further successful ablation of another six R neck nodal metastases
- By 2017: none of the 8 ablated nodes identifiable; FDG-PET/CT body scans performed in 2009 and 2016 both negative

Clinical Case Part II: Nodal Mets Ablated with Ethanol during 2008 through 2017

- 2008: Tg 4.8 on T4 Rx; Pos USGB of R level III node
- FDG-PET/CT body scans performed in 2009 and 2016
- By 2017: none of the 8 ablated nodes identifiable; FDG-PET/CT body scans performed in 2009 and 2016 both negative

Clinical Case Part III: Unexpected Development and Novel Rx for Skin Mets

- 2016: seen by local dermatologist who excised skin papule; path c/w skin metastasis from PTC
- At Mayo no imaging evidence of distant spread
- 2017-18; two further skin mets excised by dermatologic surgeons, the first with Mohs micrographic surgery; neg margins achieved
- Oct 2018: no evidence of residual disease seen in neck and no lung mets at 14.5 post years
- Latest Tg of 4.3 ng/ml w TSH of 0.2 mU/L.

Recurrence PTC in Eleven Neck Sites Controlled by Outpatient Procedures

Impact of Ethanol Ablation on Metastatic Neck Nodal Volumes

- Changes in Serum Tg During Decade at Mayo

Conclusions

- Despite 3 neck surgeries and 12,506 MBq of RAI, this man with low-risk PTC (MACIS <6 stage I PTM) developed 8 separate sites of neck nodal mets and 3 sites of skin mets
- All 11 sites effectively and cheaply treated as outpatient procedures without morbidity
- In contrast to earlier reports in the dermatologic literature, this case is unusual since he is likely to survive long after his present 14.7 post years
- Ethanol ablation and dermatologic surgery may well have roles to play in local control of PTC

References