SURGICAL MANAGEMENT OF MEDULLARY THYROID CANCER: WHICH GUIDELINES SHOULD WE FOLLOW?

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Background/Purpose: Surgery is the only effective primary treatment for medullary thyroid cancer (MTC). American Thyroid Association (ATA) and British Thyroid Association (BTA) guidelines offer differing surgical strategies. Which guidelines should we follow?
Methods: Retrospective analysis of the surgical management of 41 patients with sporadic MTC, compared to current guidelines. Biochemical cure assessed with first post-operative calcitonin, timing variable, patterns examined to ensure validity.
Results: Thirty eight patients (95%) had primary surgery with curative intent. All had total thyroidectomy, lymph node dissection was variable. ATA guidance followed most frequently. An association between stage of disease and biochemical cure observed ($p<0.001$).

			Comparison with ATA guideline			Comparison with BTA guideline		
		Total	**Under-treated**	**Guideline-followed**	**Over-treated**	**Under-treated**	**Guideline-followed**	**Over-treated**
T1	**Total**	5	2	2	1	3	1	1
	Biochemical-cure	4(20%)	1(50%)	2(100%)	1(100%)	2(66.6%)	1(100%)	1(100%)
T2	**Total**	10	4	4	2	9	1	0
	Biochemical-cure	10(100%)	4(100%)	4(100%)	2(100%)	9(100%)	1(100%)	0
T3	**Total**	7	3	2	2	5	2	0
	Biochemical-cure	5(71.4%)	1(33.3%)	2(100%)	2(100%)	3(60%)	2(100%)	0
T4	**Total**	15	3	10	2	11	4	0
	Biochemical-cure	2(13.3%)	0(0%)	1(10%)	1(50%)	1(9%)	1(25%)	0

Discussion & Conclusion: ATA and BTA guidelines agree, curative surgery should include total thyroidectomy and central lymph node dissection, but disagree, with respect to lateral lymph node dissection. ATA guidance recommends targeted dissection of image or biopsy proven compartments. BTA guidance recommends bilateral selective neck dissection for all with T2-T4 disease or palpable lymphadenopathy in any compartment.
The focused approach of the ATA provides an appropriate surgical strategy for T1-T3 stage disease. In T4 stage disease the more aggressive approach of the BTA may provide patients with a higher chance of biochemical cure.