



MEDULLARY THYROID CANCER, AN EXPERIENCE FROM A TERTIARY CARE HOSPITAL OF A DEVELOPING COUNTRY

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ABSTRACT

OBJECTIVE: To study the characteristics of medullary thyroid carcinoma (MTC) in Pakistani population.

METHODS: This retrospective study analyzed data of past 20 years in Aga Khan University Hospital, Pakistan. Data of 32 patients was analyzed after fulfillment of the inclusion criteria. Their clinical, pathological, biochemical and treatment outcomes were recorded through retrospective review of their medical record files.

RESULTS: Mean age of patients was 42.88 ± 2.67 years, with male to female ratio of 2:1. Majority (68.8%) of MTC patients were sporadic. Common presentations were neck swelling (81.3%), palpable lymph nodes (43.8%) and distant metastasis (25%). Histologically, mean tumor size was 7.62 ± 3.64 cm. Majority (68.7%) of carcinomas were unifocal, followed by bifocal (21.9%) and multifocal (9.4%). Mean pre-surgery calcitonin was 11225.7 ± 4043.57 $\mu\text{g/ml}$ (0.0-18.2) which then decreased to 244.43 ± 113.48 $\mu\text{g/ml}$ after surgery (subsequent visits). Mean pre-surgery carcinoembryonic-antigen (CEA) level was 25.08 ± 7.23 ng/ml (0-10) which then decreased to 0.0645 ± 0.044 ng/ml post-surgery. Hyperparathyroidism was found in two patients while pheochromocytoma was found in one patient only. Two patient were positive for rearranged during transfection (RET) gene mutations. Total thyroidectomy was done in 26 (81.2%) while one patient had subtotal-thyroidectomy followed by complete-thyroidectomy as initial fine-needle-aspiration-cytology was Bethesda category 3. Surgery was not performed in five patients due to distant metastasis or palliative intent. Chemotherapy was given to only one patient while radiotherapy in two patients.

CONCLUSION: MTC usually presents in fourth decade of life with male predominance and mostly sporadic occurrence. Total thyroidectomy with subsequent serial calcitonin and CEA levels thereafter are the mainstay of treatment and follow-up.

KEY WORDS: Thyroid Neoplasms (MeSH); Thyroid Cancer, Medullary (MeSH), Neck swelling (Non-MeSH); Calcitonin (MeSH); Carcinoembryonic Antigen (MeSH); Neoplasm Metastasis (MeSH); Lymphatic Metastasis (MeSH); Hyperparathyroidism (MeSH); Thyroidectomy (MeSH).

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CONFLICT OF INTEREST

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