

Role of Surgery in Anaplastic Thyroid Cancer: Are We Still in a Dilemma?

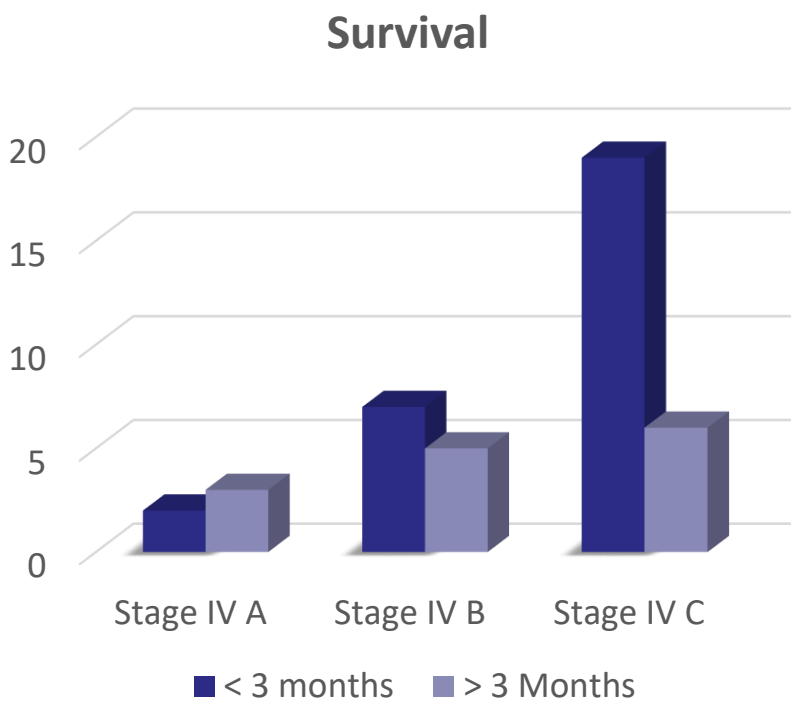
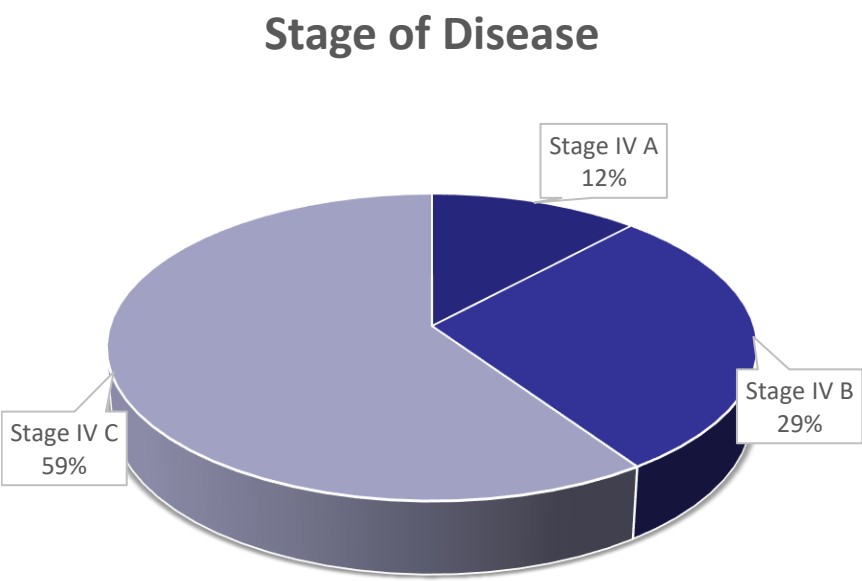
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Introduction

Management of Anaplastic Thyroid Cancer (ATC) remains challenging. The role of surgery depends on the extent of the disease, potential morbidity, prognosis, and individualized goal of care. Guidelines recommend surgical resection in Stage IVA and IVB with an individualized decision¹. However, surgical management still varies among institutions and surgeons.

Material and Methods

We retrospectively analyzed our experience of ATC in a referral center for endocrine cancer at Hospital Raja Perempuan Zainab II (HRPZ II), Kelantan, Malaysia, from 2004 to 2023, looking into demographics, clinical-pathological profile, treatment, and survival. Univariate analysis was calculated for categorical data to determine the association between the stage of disease and survival.



Results

| Patient Demographics & Clinical Presentation (n=42) | | |
|---|----------------|----------------|
| | Numbers | Percentage (%) |
| Age | Mean: 62 years | |
| Sex | | |
| Female | 26 | 61.9 |
| Thyrotoxicosis | | |
| Yes | 9 | 21.4 |
| Symptoms | | |
| Dysphagia | 25 | 59.5 |
| Dyspnea | 25 | 59.5 |
| Voice Hoarseness | 24 | 57.0 |
| Tumor Size | | |
| <4cm | 39 | 92.9 |
| LN Positive | | |
| Yes | 23 | 54.8 |
| ETE | | |
| Yes | 28 | 66.7 |
| Distant Metastasis | | |
| Yes | 26 | 61.9 |

| Treatment | | | | | |
|------------|---------------|---------------------|-------------------------|--------------|-------------------------------|
| Stage | Non-Operative | Therapeutic Surgery | Palliative Tracheostomy | Radiotherapy | Chemotherapy/Targeted Therapy |
| Stage IV A | ☑ | ⊘ | ⊘ | ⊘ | ⊘ |
| Stage IV B | ☑ | ⊘ | ⊘ | ⊘ | ⊘ |
| Stage IV C | ☑ | ⊘ | ⊘ | ☑ | ⊘ |

| Univariate Analysis of Stage of Disease Associated with Survival <3 Months | | |
|--|---------------------|---------|
| Variable | Odds Ratio (95% CI) | P value |
| Stage IV A | 1 [Reference] | |
| Stage IV B | 1.7 (0.64-3.5) | 0.129 |
| Stage IV C | 2.75 (0.25-1.79) | 0.235 |
| Median Overall Survival | 2.6 months | 0.05 |

Discussion

This data represents the largest local dataset on ATC in Malaysia. Although the median overall survival (OS) published worldwide varies between 4 to 9 months²⁻⁴, our single institution cohort of patients was still poor with 2.6 months median OS. This could be due to most patients presenting late and not benefiting from multimodal therapy, such as targeted therapy. All 42 patients were deemed unresectable, and one required palliative radiotherapy. Non-operative supportive care was given; however, no patient had tracheostomy, chemotherapy, or targeted therapy. There were 35 (83%) who survived less than 3 months. Survival of less than 3 months was observed even in Stage IVA and IVB patients.

Conclusion

Surgery remains part of the multimodal treatment options for ATC; however, given our findings of poor prognosis even in Stage IV A and IV B, the surgical option, either therapeutic or palliative, should be limited to early locoregional disease with an individualized decision.

References

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