

Incidental Tall Cell Papillary Thyroid Microcarcinoma is Not Associated with Aggressive Features

Brodie Laurie, Hieu Nguyen, Simon Ryan, David Leong
Sir Charles Gairdner Hospital, Australia

Conclusion

Tall cell subtype papillary thyroid microcarcinoma is not associated with higher risk histological features or an increased risk of metastasis.

Incidentally diagnosed tall cell papillary thyroid microcarcinoma does not require a change in management strategy compared to classical variant.

Introduction

- Tall cell papillary thyroid carcinoma (PTC) is considered to be more aggressive than the classical variant of PTC¹
- Papillary microcarcinoma (mPTC), defined as PTC \leq 1cm in diameter, is considered to be indolent in a majority of cases²
- The objective of this study was to determine if tall cell mPTC are of increased risk of recurrence or metastasis

Materials and Methods

- This multicentre, retrospective cohort study included patients who underwent thyroidectomy with histologically confirmed mPTC in Western Australia from 2015-2021
- Patients were divided based on their histological subtype

Classical

Tall Cell

- Primary endpoints were recurrence or metastatic disease
- Secondary endpoints were features of local invasion such as extrathyroidal extension, capsular invasion and lymphovascular space invasion
- Outcomes were compared using a chi-squared test or Fisher's exact test as appropriate

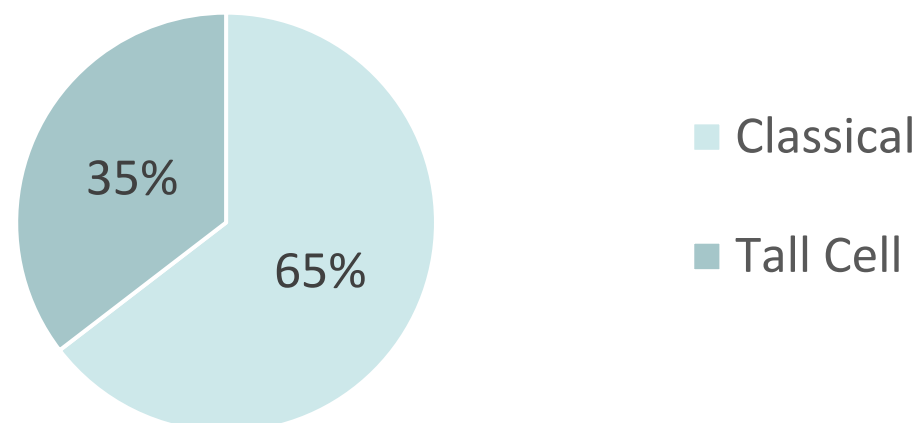
Results



DEMOGRAPHICS:

144 patients were diagnosed with papillary microcarcinoma during the study period

HISTOLOGICAL SUBTYPES:



KEY FINDINGS:

| Variable | Classical | Tall Cell | p-value |
|------------|------------|------------|---------|
| Metastasis | 23 (48.1%) | 10 (26.3%) | 0.12 |
| Advanced | 4 (4.3%) | 0 | 0.16 |

Table 1. Proportion of cases with metastasis and advanced stage (defined as stage III/IV)

There was no recurrence in either group

| Variable | Classical | Tall Cell | p-value |
|----------|------------|------------|---------|
| ETE | 23 (24.7%) | 10 (20%) | 0.56 |
| CI | 34 (38.2%) | 15 (39.5%) | 0.89 |
| LVSI | 9 (9.7%) | 4 (7.8%) | 0.71 |

Table 2. Proportion of cases with local invasion
ETE – Extrathyroidal extension, CI – Capsular Invasion, LVSI – Lymphovascular Space Invasion

Acknowledgements

1. Charlies Foundation for Research

References

1. Nath et al. Adv Anat Pathol. 2018;25(3):172-179
2. Hay et al. Surgery. 2008;144(6):980-7; discussion 987-8