

# **Incidence of Differentiated and Medullary Thyroid Cancer: A 20 year experience in an Australian Tertiary Institution**

**Sujen Jayakody**

Westmead Hospital, Australia

**T**he incidence of thyroid cancer has been increasing globally over the last few decades. A significant part of this rise is due to the increase in detection of papillary thyroid carcinoma. Whilst improved diagnostic techniques are thought to be the main reason for this rise, the overall picture however is more complex. Concurrent to rising incidence, survival rates are improving and mortality rates have remained the same. Research reports geographical variation and multi-factorial causes for the epidemiological trends. However there is minimal data on incidence rates in Australia and the effect of tumour size on incident trends. This study presents unique data on thyroid cancer over a 20-year period at a NSW tertiary institution - the University of Sydney Endocrine Surgical Unit. Our aim is to add to current research knowledge by reviewing our data and examining thyroid cancer incidence and survival outcomes in relation to tumour size. Univariate analyses were performed to explore the effects of age, sex, tumour size, vascular invasion and lymph node metastasis. Kaplan-Meier survival curves were produced to examine survival rates and multivariate Cox regression was performed to identify independent prognostic factors. We found that 49% of new papillary thyroid cancers were due to papillary micro carcinomas, however there was a significant increase in papillary carcinomas greater than 20mm. Overall survival rates were lower than anticipated however mortality rates were presumed to have fallen. We also found that genetic status in medullary thyroid carcinoma directly affected overall survival. Further research in thyroid cancer incidence should focus on mortality rates and TNM staging. The reasons for the true rise in incidence rates should also be studied. Advances in genetic testing are important in identifying at risk individuals for medullary thyroid cancer.

## **Biography**

Sujen Jayakody is a current surgical registrar at Westmead Hospital. He was the Mary Jo Reeve Endocrine Surgery Fellow at Royal North Shore Hospital, Australia in 2016 where he has developed his research interests in Endocrine Surgery.