

## **LONG-TERM OUTCOMES FROM A CONSERVATIVE MANAGEMENT POLICY FOR DIFFERENTIATED THYROID CANCER: A POPULATION BASED STUDY**

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**Background/Purpose:** The extent of treatment for differentiated thyroid cancer (DTC) remains controversial despite validated risk stratification systems. The majority of patients are low risk, and may have treatment tailored accordingly. In the absence of randomised trials, long-term outcomes from prospective case series are used to inform practice. This study describes practice and outcomes from a consistent, conservative, risk-stratified approach in a single centre over 34 years.

**Methods:** Data were collected prospectively, detailing patients, disease, management and follow-up. Practice was stratified by risk. Comprehensive data collection was facilitated by lifelong follow-up (annual examination and serum thyroglobulin), with time-specific data to analyse recurrence rates, and overall- and disease specific survival.

**Results:** 332 patients were managed 1977-2011, mean age 48.2years, 89(26.8%) male. 86(25.9%) were AMES high risk, 57(17.2%) TNM stage III and 53(16.0%) stage IV. 209(63.0%) had papillary cancer. 186(56.0%) underwent lobectomy alone; 200(60.2%) had no nodal surgery, with 48(14.5%) selective neck dissections. 72(21.7%) received radioiodine. TSH suppression was routine. With 95.8% complete follow-up, mean 13.5 years, 10/20 year rates of recurrence, overall- and disease specific survival respectively were 11.3/15.5%, 83.9/72.8%, and 92.4%/91.1%. There were no recurrences beyond 10 years, and no disease specific deaths beyond 20 years. AMES reliably identified low risk patients, with significantly increased chance of disease-specific survival (adjusted HR 42.9,  $p < 0.001$ ).

**Discussion & Conclusion:** A conservative surgical and adjuvant approach to DTC achieves excellent long-term disease specific outcomes, and avoids over-treatment of low risk patients. This study illustrates the need for comprehensive prospective, long-term, time-corrected data, to understand fully the impact of therapies on DTC.