Clinical reports have been limited to small case series. We report the largest series.

METHODS: Patients were identified through an institutional database (1990 to 2018). Clinicopathologic data were gathered from patient charts, and histopathology was confirmed by pathology review. Chi-square test and 1-way ANOVA were used for comparative analysis of benign and malignant tumors.

RESULTS: We identified 43 cases of OAT. Women comprised 65% of the group, mean age and size were 48 years (SD ± 11) and 8 cm (SD ± 4), respectively. Using Lin-Weiss-Bisceglia criteria, 10 (23%) of the tumors were benign, 21 (48%) had uncertain malignant potential (UMP), and 12 (28%) were carcinomas. Clinical data were available for 34 of the cases. Of these, 10 (29%) were functional, producing cortisol or testosterone. There were 8 (23%) recurrences and 4 (12%) deaths, none of which were in the benign group. Median follow-up was 46 months (range 2 to 190 months). Carcinoma patients were more likely to be older (benign 41.7 years, UMP 43.0 years, carcinoma 54.1 years, p=0.009), larger (benign 4.5 cm, UMP 8.8 cm, carcinoma 10.1 cm, p=0.027), and had a higher proportion of Ki67 values greater than 10% (benign 0%, UMP 10%, carcinoma 60%, p=0.027).

CONCLUSIONS: When functional, OAT secrete cortisol or testosterone. Increased age, size, and Ki67 value are associated with carcinoma. Oncocytic adrenal tumors designated benign by Lin-Weiss-Bisceglia criteria may demonstrate a decreased risk of recurrence.

Pathology and Surgical Characteristics Are Similar in Patients With and Without a Guidelines-Based Surgical Indication for Parathyroidectomy for Asymptomatic Primary Hyperparathyroidism

Nathan R Elwood, MD, Alexander T Booth, James H Mehaffey, MD, MSc, Kevin J Carlson, John B Hanks, MD, Martha A Zeiger, MD, Philip W Smith, MD
University of Virginia, Charlottesville, VA

INTRODUCTION: Established guidelines-based surgical indications (American Association of Endocrine Surgeons and Fourth International Workshop 2014) exist for parathyroidectomy in patients with asymptomatic primary hyperparathyroidism (pHPT). Many patients undergo parathyroidectomy outside these indications. We hypothesize that these patients are surgically and pathologically distinct from those with guideline-based surgical indications.

METHODS: Institutional data from parathyroidectomies performed between 2014 and 2017 were retrospectively reviewed under IRB approval. Data, including preoperative characteristics, biochemical profile, indications, surgical details, and pathology, were collected from the Collaborative Endocrine Surgery Quality Improvement Project and chart review. Secondary and tertiary hyperparathyroidism were excluded. Patients without an established surgical indication were compared with those with a guidelines-based indication.

RESULTS: A total of 293 patients were included; 42 (14.3%) did not have a guidelines-based surgical indication. Both groups were similar in age (61 years vs 62 years, p=0.6), sex (78.6% male vs 79.7% female, p=0.87), preoperative parathyroid hormone (PTH) level (122 pg/mL vs 139 pg/mL, p=0.08), and image localization (95.2% vs 95.6%, p=0.91). Twenty-five of those beyond guidelines (60%) had osteopenia. There was no difference in the rate of conversion from focused to bilateral exploration (11.9% vs 9.2%, p=0.58), 50% reduction in intraoperative PTH (100% vs 95.6%, p=0.16), multigland disease (11.9% vs 15.5%, p=0.54), nor median weight of parathyroid tissue resected (570 mg vs 600 mg, p=0.55).

CONCLUSIONS: Patients without a guidelines-based surgical indication undergoing parathyroidectomy had no observed differences in surgical characteristics or pathology compared with those who had at least 1 indication. Although these results are subject to surgeon selection bias, this suggests that their disease process is similar to those meeting guidelines-based indications.

Rates of Hemithyroidectomy for Thyroid Cancer After the Release of the 2015 American Thyroid Association Guidelines: Has Our Practice Changed?

Timothy M Ullmann, MD, Katherine D Gray, MD, Brendan M Finnerty, MD, Rasa Zarnegar, MD, FACS, Thomas J Fahey, III, MD, Toni Beninato, MD
New York Presbyterian Hospital Weill Cornell Medical Center, New York, NY

INTRODUCTION: The 2015 American Thyroid Association (ATA) guidelines for patients with differentiated thyroid cancer (DTC) stated that for low-risk cancers, hemithyroidectomy (HT) is equivalent to total thyroidectomy (TT). We hypothesized that this has led to increased rates of HT for cancer.

METHODS: Using the American College of Surgeons-NSQIP database from 2014 to 2016, we compared trends in extent of operation for thyroid cancer before (2014) and after (2016) release of the guidelines.

RESULTS: A total of 10,994 patients met inclusion criteria. The rate of HT increased from 15.1% of all thyroidectomies for cancer in the first quarter of 2014, to 19.2% in the final quarter of 2016 (p<0.001) (Figure). Multivariate analysis, adjusting for demographic and other factors, demonstrated that patients who underwent operation in 2016 were more likely to undergo HT (odds ratio [OR] 1.13, p<0.001), as were patients whose operation was performed by an otolaryngologist rather than a general surgeon (OR 1.05, p<0.001). In contrast, patients who had higher American Society of Anesthesiologists class (OR 0.89, p=0.003) or were Hispanic (OR 0.69, p<0.001) were less likely to undergo HT. HT patients had fewer complications: they were 11 times less likely to have a superficial surgical site infection (p=0.003), and nearly 5 times less likely to be reintubated after surgery (p=0.02). HT patients were also more likely to be managed as outpatients (OR 2.21, p<0.001); the same was true of white patients (OR 3.3, p<0.001).

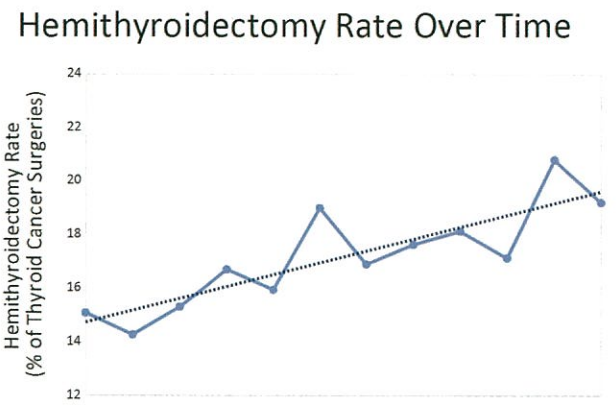


Figure.

CONCLUSIONS: The release of the latest ATA guidelines correlates with an increased rate of HT for cancer, and these patients had fewer complications and were discharged earlier than TT patients.

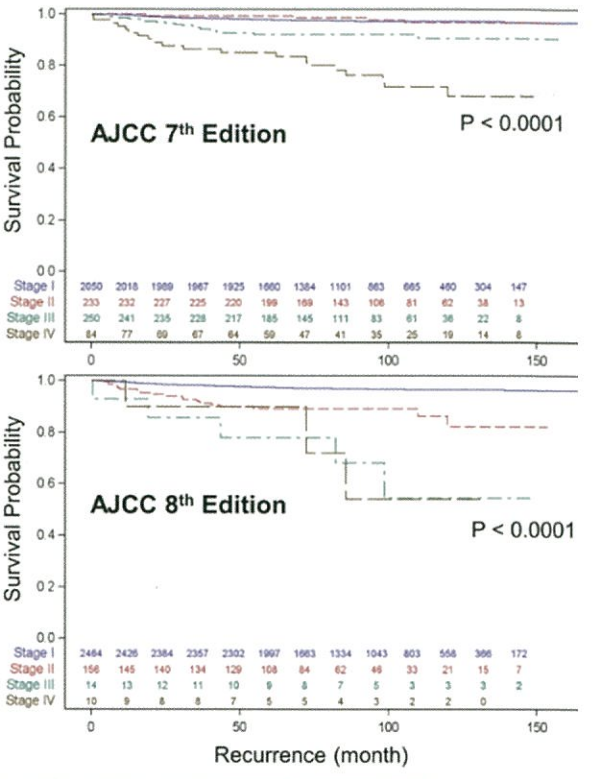
Risk of Recurrence in Differentiated Thyroid Cancer: A Population-Based Comparison of the 7th and 8th Editions of the American Joint Committee on Cancer Staging Systems

Tong Gan, MD, Bin Huang, DrPH, Quan Chen, DrPH, Cortney Y Lee, MD, FACS, David A Sloan, MD, FACS, Reese W Randle, MD
University of Kentucky, Lexington, KY

INTRODUCTION: We hypothesize that the new American Joint Committee on Cancer (AJCC) 8th edition improves upon the utility of the 7th edition in stratifying the risk of recurrence in differentiated thyroid cancer (DTC).

METHODS: A population-based retrospective review compared the risk of recurrence in DTC patients according to the AJCC 7th and 8th editions using the Kentucky Cancer Registry from 2004 to 2012. We excluded patients with metastatic disease. Kaplan-Meier plots and Cox-regression analysis were performed.

RESULTS: The study cohort included 2,901 patients with DTC considered disease free after treatment. In 22% of cases, patients were down-staged from the 7th to the 8th edition. Most patients had stage I disease (73.7% 7th edition and 89.9% 8th edition). A total of 105 (3.6%) patients recurred after a median of 28 months. Risk of recurrence was significantly associated with stage for both editions (Figure). In the 7th edition, there was poor differentiation between lower stages and better differentiation between higher stages (hazard ratio [HR] 0.8 95% CI 0.3–2.0 stage II; HR 3.3 95% CI 2.0–5.4 stage III; HR 10.2 95% CI 6.1–17.0 stage IV; all compared with stage I). The 8th edition better differentiated lower stages but not stage IV (HR 4.2 95% CI 2.5–7.0 stage II; HR 13.1 95% CI 5.3–32.5 stage III; 12.0 95% CI 3.8–38.1 stage IV; all compared with stage I).



Kaplan-Meier estimates of recurrence free survival for Differentiated Thyroid Cancer (DTC) according to the 7th (above) and 8th (below) editions of the American Joint Committee on Cancer (AJCC) staging systems.

Figure. Recurrence free survival for differentiated thyroid cancer (D

CONCLUSIONS: The 8th edition better differentiates risk recurrence of DTC for stages I to III compared with the 7th tion. Limitations remain, however, emphasizing the importa of adjunctive strategies to estimate risk of recurrence.

Total Thyroidectomy and Radioactive Iodine for Elderly Patients with Low-Risk Papillary Thyroid Cancer Confers No Survival Benefit over Lobectomy Alone

Alan Zambeli-Ljepovic, Frances Wang, MS, Terry Hyslop, PhD, Sanziana A Roman, MD, FACS, Julie A Sosa, MD, MA, Randall P Scheri, MD, FACS
Duke University Medical Center, Durham, NC

INTRODUCTION: Papillary thyroid cancer (PTC) is the fas increasing cancer in the US; incidence increases with age. It ge ally has a favorable prognosis but may behave more aggressivel older patients. This study aims to describe national treatment terns for low risk PTC in the elderly.

METHODS: The SEER-Medicare database was used to ider patients ≥66 years of age treated for clinical T1N0M0 P