Thyroidectomy using local anesthesia: a report of 1,025 cases over 16 years.

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BACKGROUND: Thyroid surgery is performed using general anesthesia by the majority of surgeons in current practice. This study was conducted to analyze the utility and safety of local anesthesia for thyroid surgery. STUDY DESIGN: Prospective data were collected for 1,025 consecutive patients undergoing thyroidectomy using monitored local anesthesia during a 16-year period by a single surgeon at a tertiary referral center. Patient features, operative data, length of stay, and complications are reported with multivariate analysis for factors associated with outcomes. RESULTS: A total of 1,025 patients underwent local thyroidectomy procedures; 34 required conversion to general anesthesia (3.3%). Total thyroidectomy (n = 589), lobectomy (n = 391), or subtotal and partial resections (n = 45) were performed for benign (n = 402), suspicious (n = 154), or malignant (n = 463) conditions. Local anesthesia was successful for thyroidectomy with concomitant parathyroidectomy (n = 142) or lymphadenectomy (n = 27), extensive goiter (n = 102), and reoperative neck procedures (n = 59). The majority of patients (90%) were considered low to intermediate risk (American Society of Anesthesiologists score <= 2), but 10% were considered high-risk (American Society of Anesthesiologists score >= 3). With accumulating experience, local anesthesia was applied more broadly to high-risk (p < 0.001), older (p = 0.04), or obese patients (p = 0.04), and likewise used in more extensive goiter resections (p = 0.05) and bilateral procedures (p < 0.001). Patients experienced temporary (n = 20) and permanent (n = 10) recurrent laryngeal nerve injuries, hematoma (n = 5), permanent hypocalcemia (n = 1), emergent tracheostomy (n = 1), wound infection (n = 1), and myocardial infarction (n = 1). Outpatient procedures (96%) substantially increased with maturation of the local anesthesia program (p < 0.001). Length of stay > 24 hours was associated with patient comorbidity (p < 0.001, relative risk 3.25). CONCLUSIONS: Thyroidectomy using local anesthesia appears safe and applicable to a wide range of patients, including those who pose a general anesthetic risk or require more complex procedures, when performed by an experienced surgeon.