

#183 Matthew Mendelsohn

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Surgical Management for Subglottic Hemangioma: A Systematic Review

Introduction:

Surgical management of subglottic hemangioma is used in patients who do not respond to conservative management including corticosteroids and/or propranolol or in cases of severe obstruction. This study compares endoscopic laser ablation and open surgical excision for the management of focal airway hemangioma of the subglottis.

Methods:

This systematic review included studies of patients with subglottic hemangioma who were managed surgically. Two independent investigators assessed study eligibility, rated the quality, and extracted data for analysis. Comparisons between different interventions were made using ANOVA.

Results:

Of the 872 studies identified, 31 met inclusion criteria. There were 409 patients with subglottic hemangioma treated surgically with reported outcomes. Regardless of surgical approach, the majority of patients had resolution of symptoms. No significant difference was found in comparing outcomes for the different interventions. The rate of complete resolution of symptoms was 89.6% for open excision, 92.4% for CO₂ laser excision, 95.4% for KTP laser excision, and 90.5% for diode laser excision. The average number of treatments required for CO₂ lasers was 2.25, 1.35 for KTP laser, and 1.6 for diode laser. There were also no differences in rates of complications including subglottic stenosis, formation of granulation tissue, and prolonged need for tracheostomy.

Conclusions:

Our systematic review demonstrated that both open surgical excision and endoscopic laser ablation with CO₂, KTP, and diode laser result in good outcomes and resolution of symptoms in patients with subglottic hemangioma. Further prospective and controlled studies comparing the efficacy of each treatment are necessary to determine new treatment paradigms after failed medical management.

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