



Drug-Induced Sleep Endoscopy: A Single Institution Study

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Objectives:

Obstructive sleep apnea (OSA) is a form of sleep-disordered breathing characterized by the collapse and subsequent obstruction of the upper airway during sleep. Drug Induced Sleep Endoscopy (DISE) is a surgical evaluation technique that allows for the examination of the upper airway under a pharmacologically induced sleep state. Our study aims to provide further information as to the utility and safety profile of DISE in analysis of patients with OSA.

Material and Methods:

Our study examines all individuals that underwent a DISE between July 2016 and April 2019 at a tertiary academic medical center. Exclusion criteria included patients under the age of 18 or over 88 years of age. We reviewed demographic information, comorbidities, operative reports, and sleep studies for 150 patients.

Results:

Within the vast majority of our patients DISE demonstrated that most patients have multilevel collapse. The average age of our patient population was found to be 56.3, the average BMI was 30.7, and the average pre-treatment AHI was found to be 36.7. We found that the velum (97%) and tongue base (80%) were the most common sites of collapse, but the oropharynx and epiglottis were also a factor in many patients. We also found that multilevel collapse is associated with worsening severity of sleep apnea.

Conclusions:

This study provides additionally information to support the use of DISE in the evaluation of patients with OSA. Within our patient cohort we found the majority demonstrated multilevel airway collapse which supports previously published data.

	Velum	Oropharynx	Tongue Base	Epiglottis
Any Collapse	97%	76%	80%	43 %
Total Collapse	68%	49%	30%	33%
Partial Collapse	22%	25%	50%	10%
Concentric Collapse	7%	2%	-	-
No Collapse	3%	24%	20%	57%

Table 1.