

PERBANDINGAN *MODIFIED MALLAMPATI TEST*, *UPPER LIP BITE TEST* DAN *THYROMENTAL DISTANCE* SEBAGAI PREDIKTOR JALAN NAPAS SULIT PADA PASIEN BEDAH SARAF ELEKTIF DI RSUD DR. SOEDARSO PONTIANAK

Budi Ramanda¹, Harmilah², Umi Istianah³
Jurusan Keperawatan Poltekkes Kemenkes Yogyakarta
Jalan Tata Bumi No. 3, Banyuraden, Ga,ping, Sleman, D.I Yogyakarta 55293
Email: budi.ramanda17@gmail.com

ABSTRAK

Latar Belakang: Manajemen jalan napas merupakan aspek penting dalam anestesi umum, terutama pada pasien bedah saraf elektif karena kegagalan prediksi jalan napas sulit dapat menyebabkan hipoksia, hiperkapnia, gangguan hemodinamik, peningkatan tekanan intrakranial, dan komplikasi neurologis. *Modified Mallampati Test* (MMT), *Upper Lip Bite Test* (ULBT), dan *Thyromental Distance* (TMD) merupakan pemeriksaan sederhana untuk skrining preoperatif.

Tujuan: Mengetahui dan membandingkan kemampuan MMT, ULBT, dan TMD sebagai prediktor jalan napas sulit pada pasien bedah saraf elektif di RSUD dr. Soedarso Pontianak.

Metode: Penelitian ini merupakan observasional analitik dengan pendekatan *cross-sectional* dan rancangan uji diagnostik. Penelitian dilakukan pada 13 April–22 Mei 2026 terhadap 31 pasien bedah saraf elektif yang menjalani anestesi umum dengan intubasi endotrakeal. Sampel dipilih menggunakan total sampling. Jalan napas sulit dinilai berdasarkan klasifikasi *Cormack-Lehane* derajat III–IV. Analisis menggunakan *Fisher's Exact*, uji diagnostik, dan kurva *Receiver Operating Characteristic* (ROC).

Hasil: Sebanyak 3 responden (9,7%) mengalami jalan napas sulit. MMT tidak berhubungan bermakna dengan jalan napas sulit ($p=0,237$), sedangkan ULBT ($p=0,001$) dan TMD ($p=0,037$) berhubungan bermakna. ULBT memiliki akurasi tertinggi (96,8%) dan AUC tertinggi (0,982).

Kesimpulan: ULBT merupakan prediktor terbaik dibandingkan MMT dan TMD dalam memprediksi jalan napas sulit pada pasien bedah saraf elektif.

Kata Kunci: *Modified Mallampati Test*, *Upper Lip Bite Test*, *Thyromental Distance*, jalan napas sulit, bedah saraf elektif

¹ Mahasiswa Jurusan Keperawatan Poltekkes Kemenkes Yogyakarta

^{2, 3} Dosen Jurusan Keperawatan Poltekkes Kemenkes Yogyakarta

A COMPARISON OF THE *MODIFIED MALLAMPATI TEST*, *UPPER LIP BITE TEST*, AND *THYROMENTAL DISTANCE* AS PREDICTORS OF DIFFICULT AIRWAY IN ELECTIVE NEUROSURGICAL PATIENTS AT DR. SOEDARSO REGIONAL GENERAL HOSPITAL PONTIANAK

Budi Ramanda¹, Harmilah², Umi Istianah³

Jurusan Keperawatan Poltekkes Kemenkes Yogyakarta

Jalan Tata Bumi No. 3, Banyuraden, Ga, ping, Sleman, D.I Yogyakarta 55293

Email: budi.ramanda17@gmail.com

ABSTRACT

Background: Airway management is an important aspect of general anesthesia, particularly in elective neurosurgical patients, because failure to predict difficult airway may lead to hypoxia, hypercapnia, hemodynamic disturbances, increased intracranial pressure, and neurological complications. The Modified Mallampati Test (MMT), Upper Lip Bite Test (ULBT), and Thyromental Distance (TMD) are simple examinations commonly used for preoperative screening.

Objective: To determine and compare the ability of MMT, ULBT, and TMD as predictors of difficult airway in elective neurosurgical patients at RSUD dr. Soedarso Pontianak.

Methods: This study was an analytical observational study with a cross-sectional approach and diagnostic test design. The study was conducted from April 13 to May 22, 2026, involving 31 elective neurosurgical patients who underwent general anesthesia with endotracheal intubation. The samples were selected using total sampling. Difficult airway was assessed based on Cormack-Lehane grades III–IV. Data were analyzed using Fisher's Exact test, diagnostic tests, and Receiver Operating Characteristic (ROC) curve analysis.

Results: Three respondents (9.7%) experienced difficult airway. MMT was not significantly associated with difficult airway ($p=0.237$), whereas ULBT ($p=0.001$) and TMD ($p=0.037$) showed significant associations. ULBT had the highest accuracy (96.8%) and the highest AUC value (0.982).

Conclusion: ULBT was the best predictor compared with MMT and TMD in predicting difficult airway among elective neurosurgical patients.

Keywords: *Modified Mallampati Test*, *Upper Lip Bite Test*, *Thyromental Distance*, difficult airway, elective neurosurgery

¹ Student of Nursing Departement, Poltekkes Kemenkes Yogyakarta

^{2,3} Lecture of Nursing Departement, Poltekkes Kemenkes Yogyakarta