

ABSTRAK

Latar belakang dan tujuan : Kegagalan memprediksi sulit laringoskopi dapat memunculkan komplikasi serius. Pemeriksaan *upper lip bite test* (ULBT), *ratio height to thyromental distance* (RHTMD) dan *extended mallampati score* (EMS) masih mungkin meningkatkan ketepatan prediksi sebagai prediktor kombinasi. Penelitian ini untuk mengetahui validitas dari prediktor kombinasi ULBT, RHTMD dan EMS.

Metode : Dengan desain *cross-sectional* telah dilakukan penelitian pada 237 pasien yang menjalani operasi dengan intubasi. Semua prediktor ULBT, RHTMD dan EMS serta MMT sebagai data sekunder diperiksa sebelum operasi, dan saat laringoskopi dinilai *Cormack Lehane* (CL) sebagai standar sulit laringoskopi. Semua variabel dianalisis kurva ROC dan AUC.

Hasil: Didapatkan 22 pasien (9,3%) sulit laringoskopi berdasar derajat CL 3 dan 4. Kombinasi ULBT+RHTMD+EMS memiliki nilai AUC 0,952, sensitivitas 90,9%, dan spesifisitas 99,5% sehingga prediktor kombinasi ini dapat dikatakan valid sebagai tes diagnostik prediktor sulit laringoskopi. Untuk kombinasi dua prediktor didapatkan RHTMD+EMS memiliki AUC (0,816), sensitivitas (63,6%), akurasi (96,2%) yang lebih baik diantara kombinasi 2 prediktor yang lain. Sebagai prediktor tunggal, EMS memiliki nilai prediktif yang lebih baik dengan nilai AUC 0,884, sedang untuk RHTMD (0,851), MMT (0,850), dan ULBT (0,688).

Kesimpulan: Kombinasi ULBT+RHTMD +EMS memiliki nilai validitas tertinggi bila dibandingkan prediktor lainnya. Hal ini menunjukkan bahwa nilai uji skrining prediktor terbatas jika menggunakan satu prediktor tunggal, karena tidak ada faktor anatomi tunggal yang dapat menentukan sulitnya laringoskopi sehingga diperlukan kombinasi prediktor untuk meningkatkan nilai diagnosis

Kata kunci: *ULBT, RHTMD, EMS, prediktor, sulit laringoskopi, Cormack Lehane.*

ABSTRACT

Background and objectives: Failure to predict difficult laryngoscopy can lead to serious complications. Examination of the upper lip bite test (ULBT), ratio of height to thyromental distance (RHTMD) and extended mallampati score (EMS) may still improve prediction accuracy as a combination predictor. This study was to determine the validity of the combination predictors of ULBT, RHTMD and EMS.

Methods: With a cross-sectional design, this study was conducted on 237 patients undergoing surgery with intubation. All predictors of ULBT, RHTMD and EMS, with MMT as secondary data were examined before surgery, and during laryngoscopy the Cormack Lehane (CL) was assessed as a difficult laryngoscopy standard. All variables were analyzed ROC and AUC curves.

Results: twenty two patients (9.3%) were considered difficult laryngoscopy based on CL 3 and 4 degrees. The combination of ULBT+RHTMD +EMS had an AUC value of 0.952, sensitivity of 90.9%, and specificity of 99.5% so that this combination predictor can be said to be valid as a diagnostic predictor test for difficult laryngoscopy. For the combination of two predictors, it was found that RHMTD + EMS had AUC (0.816), sensitivity (63.6%), accuracy (96.2%) which were better than the other of two predictors combination. As a single predictor, EMS has a better predictive value with an AUC value of 0.884, while for RHTMD (0.851), MMT (0.850), and ULBT (0.688).

Conclusion: The combination of ULBT+RHTMD +EMS has the highest validity value when compared to other predictors. This shows that the value of the predictor screening test is limited when using a single predictor, because there is no single anatomical factor that can determine the difficulty of laryngoscopy so a combination of predictors is needed to increase the value of the diagnosis.

Keywords: ULBT, RHTMD, EMS, predictor, difficult laryngoscopy, Cormack Lehane.