**Table 1.** Baseline Characteristics of Study Subjects

|  |  |
| --- | --- |
| **Baseline Characteristics** | **N (%) (n=121)** |
| **Age(years)** | 3 (1-8) |
| **Body weighta (kg)** | 12.6 (6.4-40) |
| **Heighta (cm)** | 95 (62-134) |
| **Body mass indexa (kg/m2)** | 14.33 (8,06-28,67) |
| **Sex** |  |
| Male | 68 (56,2%) |
| Female | 53 (43,8%) |
| **Body mass index-for-age** |  |
| Severely underweight (<-3SD) | 25 (20,7%) |
| underweight (-3SD to <-2SD) | 14 (11,6%) |
| Normal (-2SD to +2SD) | 70 (57,9%) |
| Overweight (>+2SD to +3SD) | 7 (5,8%) |
| Obese (>+3SD) | 5 (4,1 %) |
| **American Society of Anesthesiologists (ASA) Physical Status Classification**  ASA 1 | 32 (26,4%) |
| ASA 2 | 37 (30,6%) |
| ASA 3 | 52 (43,0%) |
| **Type of Surgery** |  |
| Pediatric Surgery | 10 (8,3%) |
| Oral and Maxillofacial Surgery | 19 (15,7%) |
| Orthopedic Surgery | 12 (9,9%) |
| Plastic Surgery | 15 (12,4%) |
| Neurosurgery | 1 (0,8%) |
| Thoracic and Cardiovascular Surgery | 20 (16,5%) |
| Urological Surgery | 22 (18,2%) |
| Vascular Surgery | 1 (0,8%) |
| Otorhinolaryngology (ENT) Surgery | 5 (4,1%) |
| Pediatric | 16 (13,2%) |

aFor non-normally distributed data, results are presented as the median (minimum-maximum values)

bFor normally distributed data, results are presented as the mean (± standard deviation)

**Table 2.** Bivariate Analysis of Demographic Characteristics and Intubation Difficulty

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **Easy intubation**  **IDS ≤5** | **Difficult intubation**  **IDS > 5** | **p-value** | **OR (95% CI)** |
| **Age** |  |  |  |  |
| 1-2 years old | 49 (94,2%) b | 3 (5,8%) | N/A | Reference |
| 3-5 years old | 34 (87,2%) | 5 (12,8%) | 0,251 | 2,402 (0,538-10,730) |
| 6-8 years old | 26 (86,7%) | 4 (13,3%) | 0,250 | 2,513 (0,522-12,086) |
| **Sex** |  |  |  |  |
| Male | 60 (88,2%) a | 8 (11,8%) | N/A | Reference |
| Female | 49 (92,5%) | 4 (7,5%) | 0,445 | 0,612 (0,174-2,154) |
| **Body mass index-for-age** | | | | |
| Severely underweight (<-3SD) | 25 (100,0%) b | 0 (0,0%) | N/A | N/A |
| underweight (-3SD to <-2SD) | 12 (85,7%) | 2 (14,3%) | 0,7644 | 1,292 (0,244 – 6,8496) |
| Normal (-2SD to +2SD) | 62 (88,6%) | 8 (11,4%) | N/A | Reference |
| Overweight (>+2SD to +3SD) | 7 (100,0%) | 0 (0,0%) | N/A | N/A |
| Obese (>+3SD) | 3 (60,0%) | 2 (40,0%) | 0,0962 | 5,167 (0,746 - 35,76) |
| **Cormack-Lehane** |  |  |  |  |
| Cormack-Lehane 1-2 | 109 (90,83%) | 11 (9,17%) | N/A | N/A |
| Cormack-Lehane 3-4 | 0 (0,0%) | 1 (100,0%) | N/A | N/A |

a= Uji Fisher Exact, b= Uji Kolgomorov-Smirnov Z

IDS: Intubation Difficulty Score; OR: odd ratio; CI: confidence interval

**Table 3.** Bivariate Analysis of COPUR Components and Intubation Difficulty.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **Easy intubation**  **IDS ≤5** | **Difficult intubation**  **IDS > 5** | **p-value** | **OR (95% CI)** |
| **Chin** |  |  |  |  |
| 1 | 95 (91,3%)a | 9 (8,7%) | N/A | Reference |
| 2 | 13 (86,7%) | 2 (13,3%) | 0,5618 | 1,628 (0,3156 – 8,356) |
| 3 | 1 (100,0%) | 0 (0,0%) | N/A | N/A |
| 4 | 0 (0,0%) | 1 (100,0%) | N/A | N/A |
| **Opening of The Mouth** | | | | |
| 1 | 106 (89,8%) | 12 (10,2%) | N/A | N/A |
| 2 | 3 (100,0%) | 0 (0,0%) | N/A | N/A |
| 3 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| 4 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| **Previous Intubation/Obstructive Sleep Apnea (OSA)** | | | | |
| 1 | 48 (96,0%)b | 2 (4,0%) | N/A | Reference |
| 2 | 49 (90,7%) | 5 (9,3%) | 0,280 | 2,582 (0,462 – 14,41) |
| 3 | 12 (70,6%) | 5 (29,4%) | 0,075\* | 5,97 (0,835 – 42,695) |
| 4 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| **Uvula** |  |  |  |  |
| 1 | 63 (95,5%)b | 3 (4,5%) | N/A | Reference |
| 2 | 44 (86,3%) | 7 (13,7%) | 0,244 | 2,413 (0,547 – 10,640) |
| 3 | 2 (50,0%) | 2 (50,0%) | 0,036\* | 13,771 (1,189 – 159,50) |
| 4 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| **Range of Motion** |  |  |  |  |
| 1 | 109 (90,9%) | 12 (9,9%) | N/A | Reference |
| 2 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| 3 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| 4 | 0 (0,0%) | 0 (0,0%) | N/A | N/A |
| **Macroglossia** |  |  |  |  |
| Yes | 4 (100,0%) | 0 (0,0%) | N/A | N/A |
| No | 105 (89,7%) | 12 (10,3%) | N/A | N/A |
| **Obesity** |  |  |  |  |
| Yes | 3 (60,0%) a | 2 (40,0%) | 0,044\* | 7,067 (1,054 – 47,391) |
| No | 106 (91,4%) | 10 (8,6%) | N/A | Reference |
| **COPUR score** |  |  |  |  |
| <7 | 67(97,1%) a | 2 (2,9%) | N/A | Reference |
| ≥7 | 42 (80,7%) | 10 (19,3%) | 0,009\* | 7,976 (1,665 – 38,202) |

a= Uji Fisher Exact, b= Uji Kolgomorov-Smirnov Z

IDS: Intubation Difficulty Score; OR: odd ratio; CI: confidence interval; COPUR: Colorado Pediatric Airway Score

**Table 4.** Distribution of COPUR Score Performance at Each Cutoff.

|  |  |  |  |
| --- | --- | --- | --- |
| **COPUR score** | **Sensitivity** | **Specificity** | **Youden Index** |
| ≤5 | 1 | 0 | 0,000 |
| ≥6 | 0,9167 | 0,2477 | 0,164 |
| ≥**7** | **0,8333** | **0,6147** | **0,448** |
| ≥ 8 | 0,5 | 0,8716 | 0,372 |
| ≥ 9 | 0,3333 | 0,9541 | 0,287 |
| ≥ 10 | 0,0833 | 0,9725 | 0,056 |
| ≥ 11 | 0,0833 | 1 | 0,083 |
| ≥ 12 | 0 | 1 | 0,000 |

COPUR: Colorado Pediatric Airway Score

**Table 5.** Final Logistic Regression Model for Predicting Difficult Intubation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **B coefficient** | **SE** | **p-value** | **OR** | **(95% CI)** |
| Uvula (1) | 1,206 | 0,717 | 0,093 | 3,341 | 0,819-13,63 |
| Uvula (2) | 3,045 | 1,16 | 0,039 | 21,0 | 2,155-204,614 |
| Constant | -3,045 |  |  |  |  |

SE: standard error; OR: odd ratio; CI 95%: 95% confidence interval

P<0.05 denotes statistical significance