# Table S1: Reasons for multiple attempts

VieScope (5 patients)

* repositioning of patient
* two attempts for bougie advancement required
* accidental esophageal intubation
* tube diameter too large
* suspected tracheal stenosis (tube could not be advanced at first attempt)

Macintosh (4 patients)

* technical defect of laryngoscope (inadequate illumination)
* difficult visualization, need for stylet
* difficult visualization, need for stylet and repositioning of patient
* tube could not be advanced at first attempt

**Table S2:** Patients’ characteristics depending on first attempt success rate

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **first attempt success (n=49)** | **multiple attempts (n=9)** | **p** |
| **Age (years)** | 54 ± 18 | 50 ± 21 | 0.555 |
| **Sex** | Male: n=27Female: n=6 | Male: n=6Female: n=3 | 0.520 |
| **Height (m)** | 1.74 ± 0.10 | 1.79 ± 0.10 | 0.200 |
| **Weight (kg)** | 80 ± 21 | 83 ± 26 | 0.720 |
| **ASA** | 1: n=142: n=253: n=10 | 1: n=32: n=53: n=1 | 0.436 |
| **SARI (points)** | 1.3 ± 1.3 | 1.2 ± 1.1 | 0.889 |
| **Mouth opening (cm)** | >4: n=454: n=4<4: n=0 | >4: n=84: n=1<4: n=0 | 0.772 |
| **Thyromental distance (cm)** | >6.5: n=406-6.5: n=9<6: n=0 | >6.5: n=96-6.5: n=0<6: n=0 | 0.162 |
| **Mallampati-score** | 1: n=102: n=223: n=164: n=1 | 1: n=32: n=33: n=34: n=0 | 0.987 |

ASA: Physical Status Classification System according to the American Society of Anesthesiologists; SARI: Simplified Airway Risk Index; Data are shown as mean ± standard deviation.

**Table S3:** Maneuvers facilitating intubation

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **VieScope (n=29)** | **Macintosh (n=29)** | **p** |
| **Airway optimization maneuvers (BURP/OELM)** | n= 4 | n=7 | 0.315 |
| **Repositioning of patient** | n=1 | n=1 | 1.000 |
| **Laryngoscope or blade change** | n=0 | n=0 | n/a |
| **Tube change** | n=1 | n=0 | 0.313 |
| **Stylet** | n/a | n=2 | n/a |
| **Magill forceps** | n=0 | n=0 | n/a |

BURP: backward upward rightward pressure; OELM: optimum external laryngeal manipulation; n/a: not applicable.