Endotracheal Intubation Training in Soft Cadaveric Models Versus Manikins of Medical Students; A Randomized Controlled Trial.

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Abstract: Endotracheal Intubation Training in Soft Cadaveric Models Versus Manikins of Medical Students; A Randomized Controlled Trial.

Background: Endotracheal intubation (ETI) is considered as a potentially life-saving procedure, and thus it is a basic essential skill that medical students must acquire. Soft cadaver is another promising tool for intubation skill acquisition since it is flexible and more realistic. However, it has not been evaluated. The purpose of this study was to compare the success rate of ETI between medical students trained in soft cadavers versus manikins.

Material and method: In this prospective, group randomized controlled trial, fifth-year medical students (n = 140) with no prior ETI training, initially received theoretical and a video demonstration about ETI. After randomization, students were trained with manikin (Laerdal® Airway Management trainer) or soft cadavers. Subsequently, all students were evaluated on the
The primary outcome was the intubation success rate in their third patient. **Results:** The intubation success rate in third patient was 75.7% in manikin group and 74.3% in cadaveric group with statistically insignificant (p = 0.808). Overall intubation success rate in manikin group was 73.3% and cadaveric group was 64.8% (p = 0.057). The successful intubation time did not differ between the 2 groups (p = 0.504) with the mean of 82.6 seconds in both groups. There were no differences in the complication rate of dental injury, soft tissue injury, hypoxia and esophageal intubation. Performance of intubation was statistically insignificant. **Conclusion:** Soft cadaver can be used as a model for ETI training, with no differences in learning outcome comparing to Laerdal manikin.

**Reference**


