



Regions Hospital®

“Emergency Medicine Begins in the Street”

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Conflicts of Interest

- None
- 0
- Nada
- I don't have any

Is there a place for the King in RSI?
Yes, MAAM.

(Medication Assisted Airway Management)

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The Method Behind the Madness

- During data analysis of a paper we published in 2003 we noticed RSI data of 112/115 (3 misses-not good)
 - Do we hammer them
 - 2 successfully managed by Combitube, by BVM (probable cord spasm)
- Lead to the discussion of what is a definitive airway in EMS
- It's one that:
 - Oxygenates
 - Ventilates
 - Protects
 - It doesn't have to be long term
- Conclusion: ETI may not be the be all and end all of RSI, airway management is. MAAM was born.
- Originally planned to study the Combitube vs. ETI and then the King LTS-D came out and it looked very good
- ILMA experience

Background

- Prehospital RSI is controversial
 - Lots of concerns including esoph tubes, increased times, hyperventilation, skill degradation etc.
 - 3 components (training, meds, devices)
- Many ambulances in the US are EMT/Paramedic configured (King is a BLS device)
- Quick (about 20 sec faster)
- Less or no interruption in CPR
- Decreasing training budgets
- Confined space, can place from side when unable to approach head
- No need for neck extension in trauma

Tale of Three Trials

Training

■ Initial Training

- Standardized 60-minute didactic training session
- Hands-on insertion skills test for ETI and King LTS-D insertion.

■ Refresher training

- Didactic training conducted at after 6 months of participation
- Monthly educational email highlighting a specific component of the study protocol.

Use of King LTS-D During Medication Assisted Airway Management (PEC Dec. 2009)

- Prospective consecutive case series
 - Again, one hour of training
 - 11 cases, all 11 successful with 10/11 on first attempt
 - 8/11 from sux to 1st ventilation < 1 min (range 1-3 min)

Advanced Airway Research Trial (AART)

- Prospective, randomized, multicenter trial comparing King LTS-D to oral ETI
 - First adult prehospital PRT comparing ETI to an alternate device
 - 205 total placements (129 King, 75 ETI)
 - No difference in 1st and 2nd time and overall success rates
 - 30 RSI (14 King, 16 ETI) subsetted
 - No difference between King and ETI
 - 1st attempt (81% vs. 93%)
 - 2nd attempt (100% vs. 93%)
 - Overall success rate (100% vs. 93%)
 - Time to insertion (20.0 ± 13.2 seconds vs. 28.4 ± 17.3)

HEMS AART

(Prelim Data)

- Consecutive case series
 - 34 cases
 - 30/34 successful (88.2%)
 - Mean time from tube in hand to chest rise was 31.71 seconds

Caveat

- The King LTS-S is not a panacea, device may need some design changes
 - Cuff
 - Thickness
 - Surface
 - Gum bougie ramp
 - Rigid tip

Conclusion

- Our data suggests RSI with King:
 - Success rate is no different (irrespective of measurement) from ETI RSI (MAAM)
 - It appears to be quicker
 - It is also is easy and quick to train
- These studies are small
- Further research is needed but preliminary work is promising

Lastly...

- There are many more pieces to this puzzle
 - Video laryngoscopy (EMESIS Trial) (Storz C-MAC vs. Glidescope vs. Airtraq vs. King vs. ETI at EMT, EMT-P and MD level (ongoing)
 - Pediatric King (protocol written, pursuing funding)
 - i-gel trial (in discussion)
 - What's next?

Questions?

