“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)
EAGLES February 26, 2010
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 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 sec)
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?