44371 - RAPID SEQUENCE INDUCTION IS USED SYSTEMATICALLY FOR APPENDECTOMIES

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INTRODUCTION: Rapid sequence induction (RSI) with cricoid pressure is recommended to decrease the risk of regurgitation of gastric contents. However, RSI does have disadvantages: it has not been shown to be effective(1) and evidence for a full stomach in appendicitis is lacking. The purpose of this study was to determine if and how anesthesiologists performed RSI in patients for whom an appendectomy is scheduled, and the incidence of airway and hemodynamic complications.

METHODS: After approval by the Ethics Committee, the records of patients undergoing appendectomy in a 1-yr period were examined prospectively. Demographic data were obtained. Type of anesthesia and Mallampati airway evaluation were noted. Information on airway device used, preoxygenation and RSI was retrieved. Drugs used at induction of anesthesia were noted. Comments on ease or difficulty of intubation, and airway complications at induction and extubation were noted. Blood pressure in the 20-min period after induction was recorded. Drugs used to maintain anesthesia and muscle relaxation were also entered.

RESULTS: General anesthesia was used in 248 of 250 cases reviewed. Tracheal intubation was performed in all these 248 cases. The charts indicated that Mallampati airway evaluation, preoxygenation and RSI were performed in the majority of cases (Table). Difficult intubation, with successful alternate technique, was encountered in three patients, none of whom desaturated. Opioids, propofol (mean dose and SD: 2.6 ± 0.8 mg/kg) and neuromuscular blocking agents were used in virtually all cases. Succinylcholine use was common, and precurarization with rocuronium was used in 96% of these cases. Hypotension and hypertension occurred in 27% and 8 % of patients respectively. There were no documented cases of aspiration. Desaturation was mentioned in one case of easy intubation at induction, and in three cases during emergence.

Table – Induction and airway management in 248 appendectomies.

		n	%
Airway	Mallampati done	239	96.4 %
	Pre-oxygenation	234	94.4 %
	Rapid sequence induction	200	80.6 %
Technique	Direct laryngoscopy	221	88.8 %
	Stylet	21	95.1 %
	Glide Scope	4	1.6 %
	Other	2	0.8 %
Drugs	Opioids	244	98.4 %
	Propofol	243	98.0 %
	Neuromuscular blocking agents	247	99.6%
	Succinylcholine	199	80.6 %
	Rocuronium	48	19.4 %
Complications	Difficult intubation	3	1.2 %
	Desaturation at induction	1	0.4 %
	Blood pressure > 160 mmHg	66	26.6 %
	Blood pressure < 80 mmHg	25	10.1 %
	Desaturation at emergence	3	1.2 %
	Aspiration	0	0 %

DISCUSSION: In spite of lack of evidence for its indication or effectiveness, RSI with opioid, induction agent and succinylcholine is the technique of choice for appendectomies. Incidence of airway complications is low and hemodynamic consequences appear to be limited.

REFERENCE:

- 1 Brimacombe JR, Berry AM. Can J Anesth 1997; 44: 414