

OVERALL CRICOTHYROTOMY

More than technical skills

Cricothyrotomy can be a life-saving procedure when correctly performed in a “cannot intubate - cannot oxygenate” situation. The FIDIVA team thinks that a workshop can be enough to get skilled on performing one or two techniques, but a professional who usually manages the airway must know all the universe that surrounds the technique. For this reason we developed the OVERALL CRICOTHYROTOMY course; it is oriented to provide a solid theoretical base in anatomy, techniques to identify the access point, current techniques to perform the procedure and the material used in each one and some other topics related with the technique as the pediatric patient, the alternative FONA technique and so on. We have prepared 25 chapters divided into six blocks. Each one of these chapters consists on a text specifically developed by our teaching staff for this course and a selection of links and recommended lectures. This part of the course is designed as on-line format. The course will be completed with a second part, mainly practical. It will be developed in a one day on-site format and the attendant will practice and discuss with the teachers all they have learned. The attendants must complete both parts and pass the evaluations to be accredited.

OVERALL CRICOTHYROTOMY is a course mainly directed to all professionals who manage the airway (specialists in Anaesthesiology, Critical Care, Emergencies and ENT).

MAIN OBJECTIVES

- To situate the technique in the current context of airway management
- To identify anatomical and ultrasonographic references of the access point
- To know in detail the different techniques and the material to be used in each one
- To develop non-technical skills and the bases for learning and teaching
- To provide the necessary tool to dominate the technique
- To provide enough criteria to be able to discuss current debates on the technique

COURSE DEVELOPEMENT

The course has two parts. First one is an on-line course where the student receives information for the study and understanding of the subject by reading topics developed by the teaching staff and recommended lectures and links to scientific texts, videos, presentations and so on. The second part is an on-site course to be developed in one day (10 h long) with some interactive presentations, video viewing and discussion and finally, to put into practice everything learned; our objective is that student will be able to locate the cricothyroid membrane in two different (lean and obese) human models by palpation and by sonographic means and to perform Surgical (mainly BACT) and Percutaneous (Seldinger and non Seldinger based) techniques in an animal specimen. Each student will perform at least 5 times each one of the different techniques. The ratio instructor/student for this practical part will be 1/3. There is a maximum admittance of 24 students.

ON-LINE COURSE

Block 1: *The cricothyrotomy in the context of airway management*

Several definitions

History

Situation of the technique into the current airway algorithms

Indications, contraindications and complications

Tracheostomy *versus* cricothyrotomy in the emergency airway. Justification

Block 2: *Access point*

Anatomy

Ultrasonography

Keys and clues to locate the point of access

Predictors of difficulty

Block 3: *Techniques and materials*

Classification criteria

Surgical techniques

Percutaneous technique with narrow bore cannula

Ventilation techniques for narrow bore cannula

Percutaneous technique with wide bore cannula

Block 4: *Non-technical skills*

Reluctance

Learning and skills retention

Block 5. *Controversies*

Surgical *versus* Percutaneous

Cuffed or non-cuffed cannula

Neuromuscular block and airway rescue techniques

The pediatric patient

Improvised techniques. Legal implications

Block 6. *Tracheostomy. The other access technique*

Global perspective of the tracheostomy

All the percutaneous techniques

Surgical tracheostomy

The tracheostomy in the emergent situation

Evaluation: There will be an evaluation for each block

ON-SITE COURSE

Presentation and introduction

The cricothyrotomy in words

- Why? Where? Whatever you are interested to learn about crico
- When? Cricothyrotomy in the context of a difficult airway
- What else? What we must know beyond the mere technique
- Who says that? Outlined publications
- You have the word. Ask us.

The cricothyrotomy in images

- Which devices can you find?
- How do you use them?

The cricothyrotomy in a debate

- Can you give me your opinion? Work lunch with the expert

The cricothyrotomy in your hands

- PART ONE. CLINICAL AND ECHOGRAPHIC ANATOMY
 - Feel and locate
 - The echoes of the membrane
- PART TWO. PUT INTO PRACTICE WHAT YOU LEARNED
 - Surgical technique. BACT
 - Seldinger based percutaneous access
 - Non-Seldinger based percutaneous access. Ventilation possibilities
 - Simulation in critical scenario.

Evaluation and take-home messages

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