WORKSHOPS: DESCRIPTIONS AND KEY LEARNING POINTS

Thursday September 22nd 2011
WORKSHOP 1
16:00-17:30 Airway. Josef Holski

Leader: Josef Holzki. Tutors: Enrique Monclus , Mairia López-Gil, Pedro Charco
Fiberoptic techniques for intubation of the difficult airway are a standard approach, however, a successful intubation does not necessarily mean an atraumatic one. Since several years there are simple, affordable, rigid scopes on the market, allowing a quick diagnosis of airway problems (Hopkins rod lens) or a safe intubation in compromised airways (Bonfils rigid, curved intubation fiberscope which can reduce the problems with difficult airways considerably.
After this course participants

- will have received an introduction in the use of rigid scopes
- will have experienced the easy visualization of the laryngeal/tracheal mucosa with rigid instruments
- will better be aware of the effects of injury by traumatic intubation and incorrect use of tracheal tubes

Dr. med. Prof. Josef Holzki, Roesrath, Germany,
Maria Teresa López Gil, Chairman of anaesthesiology and reanimation, Department of Anaesthesiology and Reanimation, University Hospital "Gregorio Marañón", Madrid, Spain

WORKSHOP 2
16:00-17:30 Arrhythmias.

Leader: Nigel Turner
Arrhythmias are common in paediatric anaesthesia, but life-threatening arrhythmias are rare. Nevertheless, the anaesthesiologist must be able to recognize potentially harmful arrhythmias quickly and to manage these effectively. Using a number of case-scenarios this workshop will illustrate the principles of the diagnosis and treatment of arrhythmias which may occur in healthy children as a result of anaesthesia or surgery, or as a result of underlying pathology. The emergency management of potentially life-threatening arrhythmias will be discussed. The workshop is designed to be very interactive and a basic knowledge of electrocardiography and paediatric resuscitation is assumed.
After this session participants will be better able to:

- Recognize arrhythmias during paediatric anaesthesia;
- Initiate emergency treatment for life-threatening arrhythmias whilst awaiting expert help.

Nigel Turner, Paediatric Cardiac Anaesthesiologist and Educationalist, Wilhelmina Children's Hospital at the University Medical Centre Utrecht, the Netherlands

Friday September 23rd 2011

WORKSHOP 1

09:00-10:30 Airway

(for description and key learning points see above)

11:00-12:00 Ultrasound-guided vascular access in children

Leader: Ehrenfried Schindler. Tutors: Thierry Pirotte, Christian Breschan

Ultrasound(US)-guidance techniques have become the gold standard for the internal jugular vein cannulation in children. Other well described US-guided access routes in children are the infraclavicular cannulation of the subclavian vein and the supraclavicular cannulation of the brachiocephalic vein. For the 2 latter approaches the in-plane technique, e.g. insertion of the needle along the long axis of the US probe, has been advocated whereas for the internal jugular vein the out-of-plane technique, e.g. insertion of the needle along the short axis of the US probe, has usually been applied. US-guidance has also been used in children for the cannulation of the femoral vein as well as artery and for any peripheral veins and arteries. In this workshop the 3 main central vascular access routes will be presented shortly. After that you will be able to practice the sonoanatomy of vessels by the use of US on teenagers on an interactive basis. In addition the US-guided puncture of vessels on Blue Phantoms (jelly devices) can also be practiced.

After this session participants will be better able to

- understand the sonoanatomy of vessels
- image via US the most popular vascular access routes in children.

Ehrenfried Schindler; Paediatric Anaesthesiologist, head of department for paediatric anaesthesiology, Children's Hospital Sankt Augustin, Germany.
Thierry Pirotte; Paediatric Anaesthesiologist, Universite Catholique de Louvain ; Cliniques universitaires St-Luc, Brussels, Belgium;
Christian Breschan; Paediatric Anaesthesiologist, General Hospital of Klagenfurt, Austria

12:00-13:00 Ultrasound for vascular access

(for description and key learning points see above)

14:00-15:30 Adverse effects of Anaesthesia

Developmental harm. Ignacio Galvez

The posibility that different anaesthetic agents may cause harm in the developing brain has caused a great deal of controversy in the anaesthetic community. Almost every single anaesthetic in use today has been shown to cause alterations in growing nervous tissue in animal studies. For ethical reasons, human studies are scarce. Apoptosis and synaptogenesis, two physiological mechanisms in the growing SNC, seem to play am important role in anaesthetic induced toxicity.

In this workshop, we will look at:

- Differences between animals and humans in terms of neuronal development.
- Possible mechanism of action involved in neuronal damage caused by anaesthetics.
- Behaviour and neurocognitive alterations after anaesthetic exposure.
- Evidence in the medical literature.

Ignacio Gálvez, Consultant Paediatric Anaesthetist, Son Espases University Hospital, Spain

Emergence delirium. Isabelle Murat

Excitation is an acute phenomenon observed after sevoflurane anesthesia but also after other volatile agents, specifically in young children (<5yr). Incidence of EA ranges from 10% to 50% but may be up to 80% in some studies. The underlying causes remain obscure but many factors related to anesthesia, surgery, the patient and adjunct medications have been suggested to play a potential role.

Prevention (not treatment) of postoperative pain is essential in order to reduce pain-related postoperative excitement. The role of pharmacological prevention of sevoflurane and desflurane-related EA in children has been recently reviewed in a meta-analysis[1]. This meta-analysis found that propofol, ketamine, fentanyl and preoperative analgesia had a prophylactic effect in preventing EA. Conversely, midazolam has no protective effect against EA[1;2]. Alpha2-agonists, clonidine and dexmedetomidine, are also effective in preventing EA in children. Finally, melatonine was demonstrated to be effective with a dose-response effect[3].

After this session participants will be able to

- Recognize and evaluate emergence agitation in children
- Known the risks factors for EA in children
- Try to prevent or treat EA at recovery

Main references

1. Dahmani S, Stany I, Brasher C, Lejeune C, Bruneau B, Wood C, Nivoche Y, Constant I, Murat I: Pharmacological prevention of sevoflurane- and desflurane-related emergence agitation in children: a meta-analysis of published studies. British Journal of Anaesthesia 2010; 104: 216-23
2. Breschan C, Platzer M, Jost R, Stettner H, Likar R: Midazolam does not reduce emergence delirium after sevoflurane anesthesia in children. Paediatr.Anaesth. 2007; 17: 347-52
3. Kain ZN, MacLaren JE, Herrmann L, Mayes L, Rosenbaum A, Hata J, Lerman J: Preoperative melatonin and its effects on induction and emergence in children undergoing anesthesia and surgery. Anesthesiology 2009; 111: 44-9

Isabelle Murat. Service d'Anesthésie Réanimation, Hôpital d'enfants Armand Trousseau, Paris, France
E-mail : isabelle.murat@trs.aphp.fr

Postoperative cognition & behaviour (Walid Habre)

Numerous publications have highlighted the high incidence of postoperative behaviour changes or disorders (POBD) particularly in preschool children. These changes include the occurrence of a new-onset of postoperative negative changes such as nightmares, sleep disturbances, feeding problems, apathy and withdrawal and anxiety on separation. One of the main issues in determining the incidence of POBD in children is the use of valid and strong tools which take into account the cognitive and psychological specificities of the children for real assessment. Although it is still difficult to predict which child will have POBD, it is important to consider that the age of the child (less than 3 years) is a major risk factor particularly if the child had a negative hospital experience and is of a particular temper (shy or impulsive). However, anxiety and pain are the 2 main factors that potentiate the occurrence of POBD and thus, attention should be paid in order to decrease both parental and child's anxiety and of course have an aggressive postoperative pain treatment.

After this session, participants should:

- Recognize the limitation of the available tools for the adequate detection of POBD.
- Be aware of the risk factors and discuss the potential role of midazolam on memory and the potential alteration of behavior postoperatively.
- Understand the complex role of particular type of surgery in the occurrence of POBD

Walid Habre, Geneva Children's Hospital, University Hospitals of Geneva.

16:00-17:30 Medical Emergencies in Paediatric Anaesthesia (MEPA)

Tutors: Pauline Cullen, Mark Thomas, David deBeer
This workshop will consist of two simulated life-threatening paediatric anaesthetic emergencies. High fidelity mannequins will be used to recreate realistic clinical scenarios with all the usual available resuscitation drugs and equipment readily available.
There will be a structured debrief to bring out and reinforce specific learning points. The ethos of the workshop is to nurture good practice in a realistic and engaging environment. The use of up to date guidelines will also be reinforced. Participants in these workshops have universally enjoyed them in the past and found the learning to be of very high value.

Mark Thomas. Consultant Paediatric Anaesthetist. Great Ormond St Hospital, London
drmarkthomas@me.com, thomam@gosh.nhs.uk
David de Beer, Consultant Paediatric Anaesthetist. Great Ormond St Hospital, London

WORKSHOP 2

09:00-10:30 Team work and decision making training in acute care settings

Tutors: Ignacio del Moral, José María Maestre.
Anesthesiologists are often exposed to situation where patients are at risk and physicians have to make decisions in dynamic and challenging situations. Providing safe patient care in an acute care setting has always been, and still is, one of the greatest challenges of healthcare. On a regular basis healthcare professionals are faced with problems that are sudden, unexpected, and pose a threat to a patient's life.
The capability to master these challenges, however, requires more than profound medical knowledge and clinical expertise: sets of skills are needed that will enable healthcare professionals to reliably translate knowledge into safe patient care despite varying and often hindering circumstances.
Simulation offers a safe environment to practice those challenging situations, and reflect about how we make decisions in acute conditions. During this workshop we will use simulation as a training tool to replicate clinical scenarios and debrief participant's decision making during the scenarios.

After this sessions participant will be better able to:

- Work as a team to provide safer care to patients
- Reflect about clinical decision making in acute care settings.

Ignacio del Moral. Anesthesiologist and Medical Educator. Director. Hospital virtual Valdecilla. Santander, Spain
José María Maestre. Anaesthesiologist and Medical Educator. Education director. Hospital virtual Valdecilla. Santander, Spain.

14:00-15:30 Team work and decision making training in acute care settings
(for description and key learning points see above)

14:30-15:30 Ultrasound for peripheral nerve blockade

Leader: Peter Marhofer. Tutors: Steve Roberts, Harald Willschke

16:00-17:30 Arrhythmias
(for description and key learning points see above)

16:00-17:00 Ultrasound for peripheral nerve blockade
(for description and key learning points see above)

SATURDAY SEPTEMBER 24TH 2011

WORKSHOP 1

09:00-10:30 Medical Emergencies in Paediatric Anaesthesia (MEPA)

(for description and key learning points see above)

WORKSHOP 2

09:00-10:30 Pediatric Anesthesia Journal Session

Publication ethics; Neil Morton. How to review a paper; Walid Habre. Best papers 2010-2011; Jerry Lerman

As an ESPA member you are entitled to a reduction in your subscription to Pediatric Anesthesia. The journal is keen to support educational sessions for ESPA.
In this session you will learn about the duties and responsibilities of authors, editors, reviewers and publishers in ensuring high standards of ethical conduct in medical science and publishing. With recent high profile cases of fraud, plagiarism and unethical research practices affecting our specialty, it is important that you are aware of measures being taken to try to ensure the integrity of the scientific record.
An important part of this process is peer review of scientific papers, but have you ever been taught how to review a paper for a journal? This session will help by showing you what you need to do, but also what not to do!
Finally, we will summarise the best papers from the last year's issues of Pediatric Anesthesia.

Neil Morton, Reader in Paediatric Anaesthesia & Pain Management, University of Glasgow, Scotland; Chair ESPA Scientific Committee
Walid Habre, MD, Division of Paediatric Anaesthesia, Geneva Children's Hospital, Geneva, Switzerland
Jerrold Lerman MD, FRCPC, FANZCA, Women and Children's Hospital of Buffalo, New York, USA