

Fractures in children: casualty, mass casualty and abuse

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During the course, it was explained that more than 3 million reports of pediatric abuse are made each year in the USA, and in Europe 1 out of 4 adults were abused – either physically, sexually, or emotionally.

"Unexplained bruises and skin lesions, bites, burns, or injuries that do not fit with the given explanation should be considered red flags" said Franck Accadbled, French professor of Pediatric Orthopedic Surgery from the Centre Hospitalier Universitaire de Toulouse. He affirmed that "One third of abuse victims are younger than one year, and one-half are younger than two. Shaken Baby Syndrome may not immediately show evidence of head trauma, but hypotonia and vomiting in toddlers may be clear signs. It is important for orthopedic surgeons to learn how to recognize and report young victims of abuse – a skeleton survey may reveal untreated fractures from multiple ages. The presence of posterior rib fractures may be signals for abuse as much as metaphyseal corner fractures." "Any decision regarding a suspected victim of child abuse should be an integrated decision, and social services and authorities should be informed," he said.



temporary external fixation as a common procedure in damage control orthopedics, as **the first objective should be quick bone stabilization and not perfect reduction.** "Human resources are, as always, a fundamental factor. **Each healthcare professional should know exactly what to do, with a definite role, from triage to the operating room. "One person/one function" is my algorithm.** In this way, a hospital can effectively manage the chaos potentially generated by a mass casualty event," he added.

Ludwig Schwering was the course Chair. He comes from Germany, and strongly believes that **there is more than one valid solution to managing pediatric trauma and limb deformities.** He is the head of the Pediatrics Orthopedics and Special Surgery at Mariannen Hospital in Werl, a town located in North Rhine-Westphalia. "Different fractures and different ages of the children require different treatment solutions. If it is true that **we tend to do what we are more familiar with, it is important to recognize that continuous learning and practicing new techniques is beneficial for any orthopedic surgeon. My motto is "let's find the right way to make life better for our young patient,"** he concluded.



On Mass Casualty Preparedness, Franck Launay, professor of Orthopedic and Trauma Surgery from Timone Children Hospital, University Hospitals of Marseille, France, made the following statement: "Any hospital should answer this basic question: are we ready to manage a massive flow of patients? If the answer is "yes", this means that a Mass Casualty Incident plan is active, updated, and well known by hospital staff. It is important that any hospital has enough resources in stock – for instance, **sterile pediatric external fixator kits**". He recommends

Jean Damien Mètaizeau is a well-known pediatric surgeon from the Centre Hospitalier Universitaire de Dijon in France: "Flexible intramedullary nailing may appear easy to apply, but it's important to practice to master the appropriate technique. At that point, FIN may be used not only in trauma, but also in extended cases, such as deformity correction in conjunction with external fixation devices," he stated.

Mikhail Samchukov is the director of the Center for Excellence in Limb Lengthening and Reconstruction at the Scottish Rite Hospital for Children in Dallas, Texas, US – an institution renowned worldwide for its elevated standards of research and development. His mission is “to bring each child back to a normal, functional mobility.” During the course, all attendees could practice with TL-HEX and the new HEX-ray™ software, the first of its kind: *“It allows surgeons to carry out easy and accurate pre-operative planning and post-operative management.”* He strongly believes in the value of good planning – “even if we rarely stick to our plans and have to move away from them, planning helps us be prepared for problems.”



Franz Birkholtz is an eminent orthopedic surgeon from the Walk-a-mile Centre for Advanced Orthopedics in Pretoria, South Africa. For him too, pre-planning is mandatory: *“The winning factors are bone deformity analysis and measurement, deformity parameters and consistent uploading of X-rays in the software, and a final treatment strategy shared with the child’s family,”* the expert said, *“because in order to reach optimal functional outcomes, children must always be compliant, and fully involved in their therapeutic journey from the very start.”*

That different problems require different treatment strategies and solutions is the core message of the 2-plus-2 day course on pediatric orthopedic surgery. Nevertheless, whatever a surgeon may decide, he/she must be well prepared and experienced. That’s why the group of international delegates from all over the world deeply appreciated the high quality content, the complexity of the clinical cases presented, the dry lab practice-based coaching, the excellent faculty, and the supportive tutoring by **Elisa Luciani**, the Orthofix Global Education Manager and her colleagues from the R&D and Marketing Dept. Particularly valued was the presentation entitled “Publish or perish” made by **Mario Dandrea**, with tips and tricks on how to prepare a scientific paper.

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