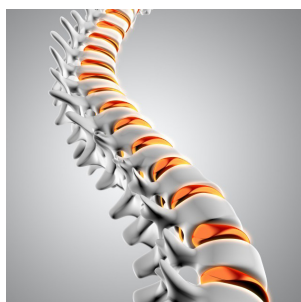


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# Keynote Forum September 03, 2019

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## *Spine 2019*



4<sup>th</sup> International Conference on  
Spine and Spinal Disorders  
September 03-04, 2019 | London, UK

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# Spine and Spinal Disorders

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## Rafid Al-Mahfoudh

*Brighton and Sussex University Hospital, UK*

### Decision making in Metastatic epidural Spinal Cord compression

**M**etastatic epidural spinal cord compression (MESCC) is a spinal emergency with the potential for devastating consequences if not promptly diagnosed and treated. A multidisciplinary approach including medical oncology, radiation oncology, and spinal surgery is imperative. Surgery is effective in prolonging ambulation for patients by preserving neurological function; surgery may also play a role in spinal stability, pain control and local control. However surgical management is only realistic in selected patients taking into account the patient's overall condition, systemic disease and tumour biology. Radiation therapy and radiotherapy are alternative therapy options. A management paradigm with clear aims is essential to aid the decision making process.

#### Speaker Biography

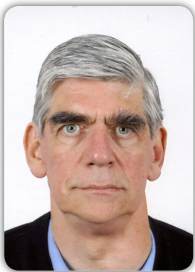
Rafid Al-Mahfoudh is an appointed Consultant Neurosurgeon and Complex Spine Surgeon in Brighton and London. He is senior lecturer at the University of Brighton. He is one very few surgeons with dual orthopaedic and Neurosurgical spine accreditation in addition to further specialist fellowship training in anterior skull base and minimally invasive neurosurgery in Adelaide and New York. He has extensive experience in treating the full spectrum of spinal disorders, pituitary tumours and endoscopic neurosurgical techniques. He is active academically with over 40 articles in peer-reviewed journals. He has completed an MSc in Surgical Science and Practice from Oxford University. He is also reviewer for the British Journal of Neurosurgery/ Global spine journal and operative Neurosurgery. He is associate Editor for the international Journal of Surgery and member of the British association of Spine Surgeons, Society of British Neurological Surgeons and European Association of Neurological Surgeons. He has specialist interest in degenerative spine disorders, spine tumours, trigeminal neuralgia, hydrocephalus and brain tumours.

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 Notes:

# Spine and Spinal Disorders

September 03-04, 2019 | London, UK



## *Gert Holstege*

*University of Groningen, The Netherlands*

### **The reason why whiplash exists and possible treatments**

**W**hiplash Associated Disease (WAD) is a disease many people suffering from. More than 75% of the cases are caused by car accidents in which the car driver, waiting in line because of a red traffic light or a traffic block, is hit by another car from behind. In most cases this accident is completely unexpected for the driver in the front car, which means that the neck muscles of this driver were relaxed during the accident. During the collision the trunk of the driver in the front car is pushed forward with the head staying behind, resulting in a sudden and strong stretching of the relaxed anterior neck muscles. Subsequently, when the front car stops, the body of the driver is pushed backward leaving the head in an anterior position resulting in very strong stretching of the posterior neck muscles. This strong flexion-extension movement often causes large damage of the neck muscles and of the facet joints, capsules and ligaments of the upper cervical vertebrae.


These neck muscles and upper cervical facet joints and ligaments send a large amount of information to the spinal cord regarding the position of the head in space. In the upper cervical spinal cord this information is relayed to higher brain levels of which the mesencephalic periaqueductal gray (PAG) and adjoining areas are the most important. Other

information regarding the position of the head originates from the vestibular nuclei and from the visual system. Based on this information the mesencephalon determines the position of the head and the eyes. In WAD-patients the damaged neck muscles and upper cervical vertebrae deliver incorrect proprioceptive information to the PAG, resulting in a mismatch between this information and the incoming information from the undamaged vestibular and visual systems. This mismatch causes balance disturbances, dizziness, headache, and central hypersensitivity to pain, the common symptoms in WAD patients. How to correct this mismatch will be discussed. Such a correction might lead to treatments of WAD, a disorder with an estimated yearly cost in Europe of at least € 10.000.000.000.

### **Speaker Biography**

Gert Holstege is a Neuroscientist at University of Groningen in the Netherlands. He studied Medicines at Erasmus University Rotterdam from 1966 to 1971. He was Neuroscientist at Erasmus University Rotterdam from 1971 to 1987, after which he worked for four years for NASA in Mountain View, California. Since 1990, he has worked at University of Groningen, where he has been a Full Professor of Neuroanatomy since 1993 and Chairman of the Department of Anatomy and Embryology at Faculty of Medicine.

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 Notes:

# Spine and Spinal Disorders

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## *Gibran Franzoni Rufca*

*Hospital Santa Casa de Ourinhos, Brazil*

### **Novelties in XLIF and ALIF as minimally invasive treatments for Lumbar Spine Degenerative Disorders**

Lumbar Spine Degenerative Disorders with radiculopathy is an increasingly common pathology in the World, and the most common indication for spinal surgery in patients older than 65 years. Conservative therapies are often successful although about 20% of the patients may require surgical decompression. The conventional surgical technique of decompressive laminectomy and foraminotomy and fusion with pedicular screws and lumbar interbody fusion is a successful procedure, but carries significant risk of surgical morbidity and complications, specially muscle atrophy and denervation and chronic low back pain. In this scenario, the extreme lateral and the anterior interbody fusion (XLIF and ALIF) techniques allows direct access to the disc space with minimal tissue destruction and no disruption of posterior paraspinal musculature, facilitating indirect spinal decompression, with promising results. Nevertheless, there

are several aspects of these procedures that have to be studied, and the areas covered in this lecture are: anatomical understandings of the anterior and lateral approach, safety and outcomes studied so far and costs of the new technologies.

#### **Speaker Biography**

Gibran Franzoni Rufca has completed his degree in Medicine and Neurosurgery from the School of Medicine of São José do Rio Preto. He lives in the State of São Paulo and my main institution is the Hospital Santa Casa de Ourinhos, where his team and I provide neurosurgical treatments, mainly for the pathologies of the vertebral column. He is currently doing his master's degree student in the Post-Graduation Program of the University of São Paulo - Campus Botucatu; working in the research of pain and minimally invasive surgeries of the spine, under the coordination of Prof. Dr. Flávio Ramalho Romero.

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