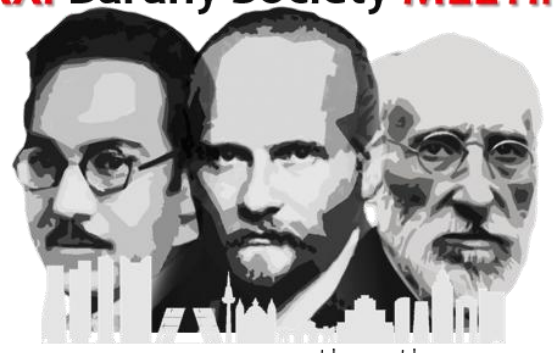
XXXI Bárány Society MEETING



MADRID, MAY 9th-11th 2022

SP06

XXXI Bárány Society MEETING

MADRID, MAY 9th-11th 2022

SYMPOSIUM FORM

- ORGANIZER'S NAME and SURNAME: Klaus Jahn
- ORGANIZER'S E-MAIL: klaus.jahn@med.uni-muenchen.de
- ACADEMIC/HOSPITAL AFFILIATION: Department of Neurology and German Center for Vertigo and Balance Disorders, Ludwig Maximilians University, Munich, Germany
- SESSION TITLE: Vestibular assessment and disorders in children

3 or 4 SPEAKERS PER SYMPOSIUM:

- SPEAKER 1
  NAME AND SURNAME: Lees Maes
  TOPIC DESCRIPTIVE TITLE: Vestibular infant screening
  ACADEMIC / HOSPITAL AFFILIATION: Ghent University Hospital, Belgium

- SPEAKER 2
  NAME AND SURNAME: Sharon Cushing
  TOPIC DESCRIPTIVE TITLE: Vestibular disorders in children with sensorineural hearing loss
  ACADEMIC / HOSPITAL AFFILIATION: Hospital for Sick Children, Toronto, Canada

- SPEAKER 3
  NAME AND SURNAME: Josine Widdershoven
  TOPIC DESCRIPTIVE TITLE: Classification of vestibular disorders in children
  ACADEMIC / HOSPITAL AFFILIATION: Maastricht University Medical Center, the Netherlands

- SPEAKER 4
  NAME AND SURNAME: Sylvette Wiener Vacher
  TOPIC DESCRIPTIVE TITLE: Incidence of vestibular disorders in children
  ACADEMIC / HOSPITAL AFFILIATION: University Hospital Robert Debré, Paris, France

- **A BRIEF** (<300 WORDS) DESCRIPTION OF THE THEME AND TARGET AUDIENCE:

This symposium will focus on vestibulas assessment in children. It is an area that is getting increased attention in vestibular research. On the one hand this is due to increased awareness of the existence of vestibular pathologies in children, as a number of dedicated pediatric vestibular centers have come up in the past few years worldwide, both from otolaryngologic and neurologic experts. On the other hand, awareness has increased as a result of the advancement of cochlear implantation surgery, which likely has both positive and negative effects on vestibular function.

The recent development of the diagnostic criteria consensus document of the Committee for the Classification of Vestibular Disorders of the Barany Society and the International Headachge Society entitled "Vestibular Migraine of Childhood and Recurrent Vertigo of Childhood" illustrates the increased demand for knowledge in this area.

The target audience comprises of both neurologists and otorhinolaryngologists, especially those involved in the care of children. In addition, general practitioners, pediatricians, physiotherapists, audiologists and other professionals occupied in the care of children with vestibular pathologies will benefit from the lectures.

- A 150-WORD **ABSTRACT FROM EACH OF THE SPEAKERS:**

ABSTRACT 1

Hearing-impaired children are at risk for a vestibular impairment, as auditory and vestibular end-organs are closely related. Pediatric vestibular assessment is challenging and often not routinely performed in this population. Consequently, vestibular deficits often go unnoticed, giving rise to associated disorders such as a delayed motor development.
In Flanders (Belgium) a vestibular screening programme has been implemented since June 2018, giving each congenitally hearing-impaired child access to a basic vestibular screening. This screening should increase awareness and lead to early identification of vestibular deficits and referral for motor assessment and rehabilitation, in order to limit the impact on a child's development and improve their quality of life.
In this presentation, the results of 4 years of screening will be presented, along with some tips on how to maximize the feasibility of pediatric vestibular assessment.

ABSTRACT 2

Concurrent and severe vestibular deficits occur in 30-40% of children with sensorineural hearing loss, with many of these children having bilateral vestibular loss. The prevalence of vestibular dysfunction varies by etiology of deafness with cochleovestibular anomalies, meningitis, congenital cytomegalovirus and recessive genetic causes such as Usher Type 1, being amongst the most likely etiologies. The impact of these primarily congenital, sensory deficits is widespread, as they influence not only balance and motor function but also spatial navigation, memory and learning. Vestibular impairment likely also explains some of the variability in outcomes in children with hearing loss who receive interventions such as amplification or cochlear implants. It is therefore important that vestibular function be assessed in the child presenting with hearing loss. Doing so will allow them to access appropriate rehabilitative strategies that consider the nature and extent of their sensory impairments with the view of optimizing development and outcome.

ABSTRACT 3

Vestibular disorders in children are more common that previously expected. Children often do not report typical vestibular symptoms and cannot describe their complaints very well. Nonetheless, it is estimated that vestibular loss in children is as common as sensorineural hearing loss. This validates the need for screening children with sensorineural hearing loss for vestibular loss. What's more, known vestibular pathologies, such as Meniere's disease, BPPV, and vestibular migraine do occur in children and should be looked out for in the pediatric population. In this presentation we would like to discuss the presence of vestibular pathologies in children and practical advice on how to carry out a vestibular assessment in children. The recent development of the diagnostic criteria consensus document of the Committee for the Classification of Vestibular Disorders of the Barany Society and the International Headache Society entitled "Vestibular Migraine of Childhood and Recurrent Vertigo of Childhood" will be discussed.

ABSTRACT 4

To report on vestibular impairment (VI) in children with balance disorders (BD) or hearing loss (H). VI was shown in 51.5% of children. For BD (e.g., vertigo, instability, delay in posturomotor development), VI was found in 36.5%. Causes of BD with VI included inner ear malformation, trauma, vestibular neuritis, meningitis, Meniere, and BPPV. After exclusion of vestibular origin to BD, other diagnoses were found: migraine, ophthalmological disorders, neurological disorders or somatoform dizziness. Of children referred for hearing loss, 68.5% were tested without cochlear implantation (CI). Of these, 54.5% presented with VI. This was mostly found in cytomegalovirus infection, inner ear malformation, and genetic syndromes. CI candidates had complete bilateral vestibular loss in 20% and 80% had partial or normal vestibular function. Vestibular testing permits ruling out VI and hence seeking other causes for BDs such as migraine and helps lower the risk of inducing bilateral vestibular loss in CI protocols.