

XXXI Bárány Society MEETING



MADRID, MAY 9th-11th 2022

SP02



SYMPOSIUM FORM

- ORGANIZER'S NAME and SURNAME: Giacinto Asprella Libonati
- ORGANIZER'S E-MAIL: asprella@tin.it
- ACADEMIC/HOSPITAL AFFILIATION: U.O.S.D. Vestibologia e Otorinolaringoiatria Ospedale Giovanni Paolo II, Policoro, Italy
- SESSION TITLE: BPPV news and atypical patterns

3 or 4 SPEAKERS PER SYMPOSIUM:

- SPEAKER 1

- NAME AND SURNAME: Giacinto Asprella Libonati
 TOPIC DESCRIPTIVE TITLE: Apogeotropic variant of PSC BPPV: differential diagnosis from ASC BPPV
 ACADEMIC / HOSPITAL AFFILIATION: U.O.S.D. Vestibologia e Otorinolaringoiatria Ospedale Giovanni Paolo II, Policoro, Italy

- SPEAKER 2

- NAME AND SURNAME: Leonardo Manzari
 TOPIC DESCRIPTIVE TITLE: Cupulopathy: a pathophysiological model of semicircular canal dysfunction
 ACADEMIC / HOSPITAL AFFILIATION: MSA ENT Academy Center, Cassino (FR) - Italy

- SPEAKER 3

- NAME AND SURNAME: Andrea Castellucci
 TOPIC DESCRIPTIVE TITLE: Canalith jam, clinical features and role of vHIT in diagnosing
 ACADEMIC / HOSPITAL AFFILIATION: ENT Unit, Department of Surgery, Arcispedale Santa Maria Nuova, AUSL - IRCCS, Reggio Emilia, Italy

- SPEAKER 4

- NAME AND SURNAME: Salvatore Martellucci
 TOPIC DESCRIPTIVE TITLE: BPPV upright nystagmus features: any news in minimum stymulus strategy
 ACADEMIC / HOSPITAL AFFILIATION: ENT Unit, Ospedale Santa Maria Goretti, Latina - Italy

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

Positional vertigo is still a topic of great interest and in constant evolution: alongside the typical BPPV of the posterior and lateral semicircular canals, other variants, recently described, can frequently occur. The approach to these variants of positional vertigo may be controversial due to the lack of diagnostic criteria and shared therapeutic strategies. This symposium will be focused on some hot topics: the apogeotropic variant of PSC BPPV and the differential diagnosis from ASC BPPV, the pathophysiology of light and heavy cupola and the canalith jam, highlighting the diagnostic role of vHIT. The Speakers will deal with the pathophysiology and clinical features of each variant of peripheral positional vertigo, presenting the differential diagnosis with the central forms. Furthermore, some clinical cases resulting from the Authors' experience will be shown. The last presentation will address the nystagmus features in upright position, presenting a new diagnostic algorithm addressed to diagnose in BPPV both: the affected ear and the involved semicircular canal, keeping the patient in the sitting position and, in so doing, causing him as little discomfort as possible.

The knowledge of the positional vertigo clinical variants of peripheral origin will allow the attendees to recognize even the rarest forms and to perform a clinical bedside examination according to the strategy of the minimum stimulus, also making them experts in the choice and interpretation of any instrumental examinations if advisable.

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

ABSTRACT 1

Sometimes debris could be located inside posterior canal close to the common crus, thus configuring the apogeotropic variant of posterior canal-paroxysmal positional vertigo (aPC-PPV), characterized by torsional down beating nystagmus in Dix-Hallpike position.

Two techniques have been proposed to distinguish apogeotropic posterior canal variant from anterior canal-paroxysmal positional vertigo, both characterized by the same nystagmus direction: a liberatory manoeuvre (Demi Semont) and a forced prolonged position (FPP). Both these techniques need to observe the torsional component in Dix Hallpike in order to diagnose the affected side.

A new technique is proposed for patients in whom the torsional component of the nystagmus is not visible in Dix Hallpike, which is achieved by bringing the patient from side to side with the head rotated in the plane of the posterior canal. It allows to transform the aPC-PPV into a typical PSC BPPV, which can be subsequently treated by the Semont maneuver.

ABSTRACT 2

The most common type of positional vertigo is Benign Paroxysmal Positional Vertigo (BPPV). Cupulopathy can be considered as an emerging clinical entity in the vestibular field.

Cupulolithiasis-type of BPPV involving the lateral semicircular canal (LSCC) shows a characteristic direction-changing positional nystagmus (DCPN) which beats away the lower ear (apogeotropic) on turning the head to either side in a supine position while canalolithiasis-type of BPPV shows a characteristic direction-changing positional nystagmus (DCPN) which beats towards the lower ear (geotropic).

Anyway direction-changing positional nystagmus (DCPN) has also been observed as persistent horizontal apogeotropic and is considered as “cupulopathy - heavy cupula”.

More recently, persistent horizontal geotropic direction-changing positional nystagmus (DCPN) has also been described and is considered as “cupulopathy - light cupula”.

However, the light cupula is not systematically described and for this reason the identification and diagnosis of “light cupula” should be improved.

ABSTRACT 3

A canalith jam (CJ) can occur when an otolith clot occludes a narrow portion of a membranous duct. It results in an endolymphatic flows blockage and a persistent deflection of cupula generating a nystagmus aligning with the plane of the plugged canal, regardless of head position. It may occur either spontaneously or following repositioning procedures for BPPV. CJ diagnosis is challenging, as resulting spontaneous nystagmus could be mainly horizontal or downbeat/upbeat depending on the involved canal. Clinical features of cases presenting with CJ will be presented, pertinent literature will be reviewed and the pivotal role of video-head impulse test (vHIT) in diagnosing, in particular in differentiating CJ from an acute vestibular loss or central disorders, will be discussed. It will be also discussed the role of vHIT in differentiating positional nystagmus due to apogeotropic posterior canal-BPPV from anterior canal-BPPV, where an incomplete CJ behaving as a “low-pass filter” is hypothesized.

ABSTRACT 4

To diagnose which is the affected side, which semicircular canal is involved and geotropic from apogeotropic variant can be challenging in BPPV patients with recent onset of vertigo and intense autonomic symptoms. The Minimum Stimulus Strategy (MSS) is a nystagmus-based algorithm which aims to diagnose any variant of BPPV by causing as little discomfort as possible to the patient. The first MSS step involves the observation of the nystagmus features keeping the patient in upright position and looking for any pseudo-spontaneous nystagmus and direction-changing nystagmus evoked by the head pitch test (HPT). If the posterior semicircular canal is involved, the evaluation of oculomotor responses to the HPT can suggest both: the affected side and the BPPV variant. Horizontal direction-

changing nystagmus evoked by HPT indicates the involvement of the lateral semicircular canal, and the upright Head Roll Test (uHRT) can allow the diagnosis of the involved ear and the BPPV variant.