

a) Title of abstract [maximum 20 words]

Dizziness:

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c)

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d) Relevance to conference theme(s) [Completed via drop-down list]: Musculoskeletal

e) Brief biography of presenting author [150 words]

f) Information concerning any presentations or publications of the work made prior to conference (see General information, point 13) [maximum 50 words]

g) Ethical review This is a section is very important and many abstracts 'fall down' here. If you are undertaking research in health and social care, independent ethical review is a legal requirement.

Special interest report

Poster title: *Dizziness: differential characteristics for Patients with Vertebral Artery Dissection, Vertebrobasilar Insufficiency and Benign Paroxysmal Positional Vertigo*

500 Words

Purpose Dizziness can be associated with a variety of conditions that present to physiotherapists. It may exist or co-exist with benign mechanical dysfunctions of the cervical spine or be indicative of pathology from other systems including neurological, cardiovascular, vestibular and metabolic. Vertebrobasilar insufficiency (VBI) and Vertebral Artery Dissection (VAD) are both conditions thought to be associated with dizziness. VBI can present with a musculoskeletal dysfunction and would contraindicate specific treatment techniques whilst VAD can masquerade as a musculoskeletal pathology but requires urgent medical referral. Therefore, the challenge of differential diagnosis is complex but essential. The aim of this systematic review is to collate subjective descriptions of dizziness from reported cases of patients with VBI or VAD and compare with one of the most common causes of dizziness, Benign Paroxysmal Positional Vertigo (BPPV), in order to identify if any patterns exist that can aid differential diagnosis.

Methods

A systematic search of 6 databases (Medline, AMED, CINAHL, SPORTdiscus, PsychINFO, AGEline) was performed (October 2016) comprising of terms that were categorised under: 'benign paroxysmal positional vertigo', 'vertebral artery dissection', 'vertebrobasilar insufficiency', 'dizziness' and 'clinical presentation'. Each pathological condition was searched alongside the categories of 'dizziness' and 'clinical presentation'.

Case control studies, case series and case reports were included. Two independent reviewers screened titles and abstracts and verified quality appraisal for a selection of articles. The Joanna Briggs Institute Critical appraisal checklist was employed to assess for methodological quality. A method of thematic analysis was undertaken based on a priori themes to highlight similarities and differences across the datasets for each pathological condition investigated.

Results

The search retrieved 160 articles. 145 were excluded (32 duplicates, 102 through title and abstract screening, 11 through full text screening). Of the 15 remaining articles, 8 reported on BPPV, 5 reported on VAD and 2 reported on VBI. Reasons for exclusion included: other causes of dizziness, patient symptoms not reported, lack of outcome data, comorbidities present and not pathology of interest. Vertigo, used to describe a rotational (spinning) head sensation, was the most prevalent symptom quality reported in all BPPV studies. Symptoms associated with BPPV demonstrated latency of 5 to 15 seconds, a duration of 30 to 60 seconds and fatigability with a diminished intensity of vertigo with repeated exposure to the trigger. Vertigo was the most prevalent term used to describe symptoms for VAD. The clinical characteristics for symptom latency, duration and fatigability were not reported. Two studies reporting VBI revealed vertigo and ataxia to be most prevalent, with disequilibrium, and instability also reported. VBI exhibited symptom latency of less than 50 seconds, variable duration, with no fatigability.

Conclusions

There is distinct overlap with the terms used to describe the quality of the symptom however consideration of other factors such as latency, duration and fatigability provided more exclusive evidence to facilitate diagnostic reasoning.

Implications

Differential diagnosis should incorporate all aspects of the subjective and, if appropriate, the objective assessment, however more detailed questioning about the presence of and characteristics of dizziness may assist with differential diagnosis.

Three key words

Dizziness; Cervical Artery dysfunction; Benign Paroxysmal Positional Vertigo;

Funding acknowledgements

The term dizziness can be used to describe vertigo, lightheadedness, wooziness, giddiness, a loss of balance (disequilibrium) and presyncope (feeling of impending faint) and may assist