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Commentary OMICS International

Comments on an Update of Clinical Practice Guideline: Benign Paroxysmal Positional Vertigo

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Abstract

The clinical practice guideline for benign paroxysmal positional vertigo (BPPV) is newly updated by the American Academy of Otolaryngology—Head and Neck Surgery Foundation. The guideline will guide clinicians to manage BPPV in their clinical practice. But some descriptions in the Statement 1a and Statement 1b of the guideline seem not quite clear or appropriate, which would make clinicians have some misunderstandings. Thus we present our opinions: 1) the Dix-Hallpike test should be repeated on the opposite side no matter the test on initial side is negative or positive due to possible presence of bilateral posterior canal BPPV; and 2) no matter the bilateral Dix-Hallpike tests are negative or positive, the supine roll test should be followed due to possible presence of multicanal BPPV variation with involvement of posterior and lateral canals.

Keywords: Benign paroxysmal positional vertigo; Posterior semi-circular canal; Lateral semi-circular canal; Dix-Hallpike test; Supine roll test

The American Academy of Otolaryngology—Head and Neck Surgery Foundation newly published an update of 2008 Clinical Practice Guideline: Benign Paroxysmal Positional Vertigo (BPPV) [1], which will guide clinicians to manage BPPV in their clinical practice. However we feel some descriptions in the Statement 1a and Statement 1b of the guideline are not quite clear or appropriate.

First, the guideline provided a strong recommendation: "Statement 1a. Diagnosis of posterior semicircular canal BPPV: Clinicians should diagnose posterior semicircular canal BPPV when vertigo associated with torsional, upbeating nystagmus is provoked by the Dix-Hallpike maneuver, performed by bringing the patient from an upright to supine position with the head turned 45° to one side and neck extended 20° with the affected ear down. The maneuver should be repeated with the opposite ear down if the initial maneuver is negative." Similar descriptions also occurred respectively in the Supporting Text section, Performing the Dix-Hallpike Diagnostic Maneuver section (and see Table 5 of the guideline [1]). According to the descriptions, clinicians would have such a misunderstanding that the Dix-Hallpike test should not be performed with the opposite side if the test on initial side is positive, although some additional descriptions were given in the Performing the Dix-Hallpike Diagnostic Maneuver section of the guideline: "The Dix-Hallpike maneuver may in certain circumstances be performed bilaterally to determine which ear is (or ears are) involved, particularly if the diagnosis is not clear with the first performance of the maneuver. In a small percentage of cases, the Dix-Hallpike maneuver may be bilaterally positive" [1].

As mentioned in the guideline, there are multicanal BPPV and bilateral multicanal BPPV, including bilateral posterior canal BPPV, although they are rare variations of BPPV [1]. An incidence of up to 10% of bilateral posterior canal BPPV among BPPV cases has been reported in several studies [2-8]. Thus if the Dix-Hallpike test should not be repeated with the opposite side when the test on initial side is positive, potential cases with bilateral posterior canal BPPV would not be diagnosed and treated appropriately. Therefore we think that the Dix-Hallpike test should be repeated with the opposite side no matter the test on initial side is negative or positive due to possible presence of bilateral posterior canal BPPV.

Second, a recommendation was made in the guideline: "Statement 1b. Diagnosis of lateral (horizontal) semicircular canal BPPV: If the patient has a history compatible with BPPV and the Dix-Hallpike test exhibits horizontal or no nystagmus, the clinician should perform, or refer to a clinician who can perform, a supine roll test to assess for lateral semicircular canal BPPV" [1]. Similar opinion was also reflected in one of the figure in the guideline [1]. But according to the description in text and the algorithm (of Figure 8 from [1]), clinicians would possibly understand that a supine roll test to examine lateral canal BPPV should not be performed if patient presents with a history compatible with BPPV and the Dix-Hallpike test is positive, namely on the test the patient exhibits upbeating-torsional nystagmus, a typical nystagmus for the diagnosis of posterior canal BPPV.

Lateral canal BPPV is also a common subtype of BPPV, accounting for 5% to 22% cases of BPPV [1], but its incidence may have been underestimated [9], since lateral canal BPPV may spontaneously recover more quickly than posterior canal BPPV [1,10]. Multicanal BPPV may also simultaneously involve in the posterior and lateral canals, either on the same side or on 2 sides, with a reported incidence of up to 13% among BPPV cases [4-8]. Thus if the supine roll test to evaluate lateral canal BPPV should not be performed since the patient presents with a history corresponding BPPV and shows a positive Dix-Hallpike test, potential cases with multicanal BPPV involving the posterior and lateral canals would not be diagnosed and treated appropriately. As mentioned in the Risk and Benefit Analysis section of

Statement 1b in the guideline, "The benefit of performing the supine roll test is that it allows clinicians to confirm a diagnosis of lateral semicircular canal BPPV quickly and efficiently. It also allows clinicians to more accurately and comprehensively diagnose positional vertigo that is not due to the posterior canal, whereas without supine roll testing, patients with lateral semicircular canal BPPV might be diagnostically missed if only traditional Dix-Hallpike testing were done" [1]. Therefore we think that patient with a history corresponding BPPV should routinely undergo the supine roll test after receiving bilateral Dix-Hallpike tests, no matter the Dix-Hallpike tests are negative or positive, due to possible presence of multicanal BPPV subtype with simultaneous involvement of posterior and lateral canals.

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