

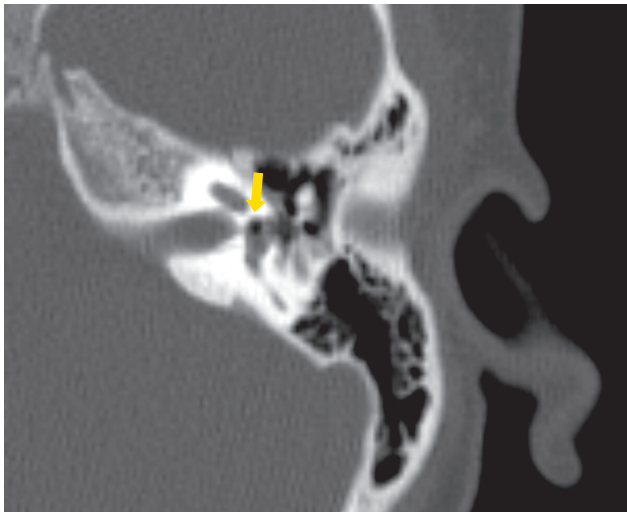
# Pneumolabyrinth: A Rare Cause of Vertigo after Minor Ear Trauma

## Pneumolabirinto: Uma Causa Rara de Vertigem após Traumatismo Ligeiro do Ouvido

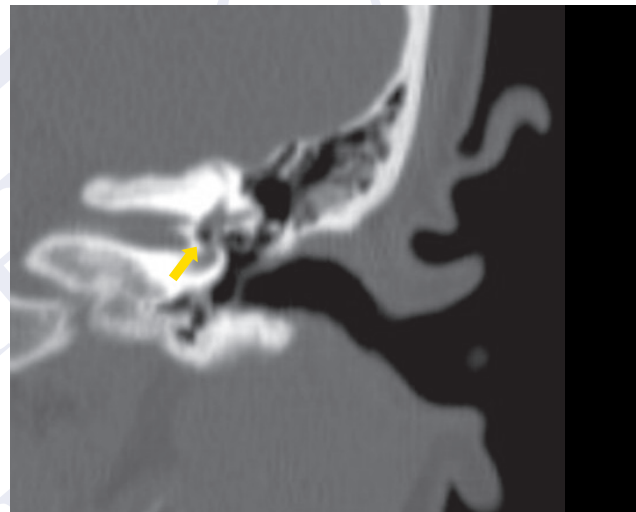


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**Keywords:** Fistula; Labyrinth Diseases; Vertigo  
**Palavras-chave:** Doenças do Labirinto; Fistula; Vertigem



**Figure 1** – Axial computed tomography image of the temporal bone showing an air bubble in the left vestibule (arrow)



**Figure 2** – Coronal computed tomography image of the temporal bone shows the same air bubble in the left vestibule (arrow)

Pneumolabyrinth is diagnosed by the presence of air inside the inner ear.<sup>1</sup> We report the case of a healthy 9-year-old girl who developed dizziness and vomiting after inserting a hairpin in her itching ear. On examination she presented signs of left vestibulopathy (right-beating nystagmus on head shaking test and refixation saccade on head impulse test to the left) and evidence of trauma to the eardrum on otoscopy, without perforation. Pure tone audiometry did not show cochlear lesion. The temporal bone computed tomography revealed air in the left vestibule (Figs 1, 2).

She did antibiotic prophylaxis and three days of systemic corticosteroids. Vertigo subsided after one week with normalization of the vestibular examination and absence of signs of perilymphatic fistula. The case is remarkable because pneumolabyrinth is rare, particularly without temporal bone fracture,<sup>2,4</sup> and it is usually the result of major trauma.<sup>1</sup> It is important that the clinician considers this diagnosis when evaluating a patient with vertigo, even after minor trauma to the ear canal.

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### AUTHORS CONTRIBUTION

All the authors contributed equally to the draft of the article and literature review.

### PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

### DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

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## INFORMED CONSENT

Obtained.

## CONFLICTS OF INTEREST

All authors report no conflict of interest.

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