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Research Article

Dizziness Following Surgical Procedures: A Retrospective Clinic-Based Study

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Abstract

Background: Dizziness may be reported after surgical procedures, and benign paroxysmal positional vertigo (BPPV) has been described following non-otologic procedures. The frequency of post-procedural symptom onset among patients attending a vertigo clinic is clinically relevant.

Objective: To estimate the proportion of patients presenting with vertigo or balance complaints who reported dizziness onset after a surgical procedure and to describe the reported clinical pattern.

Methods: This retrospective, clinic-based study reviewed one year of outpatient records for 200 patients presenting with vertigo or balance complaints. Clinical history, including recent surgery, clinical and neurotological examination findings, and positional test results for all three pairs of semicircular canals were reviewed. The proportion reporting post-surgical onset was estimated with a 95% confidence interval (CI), reported as calculated using the Wilson score method.

Results: Of 200 patients, 120 (60.0%; 95% CI, 53.1%–66.5%) reported dizziness beginning between two weeks and six months after a surgical procedure. Cataract surgery, total knee replacement, and dental procedures were the most commonly reported preceding procedures, although procedure-specific counts were unavailable in the source dataset. BPPV was the leading diagnosis. Posterior-canal involvement was most frequent, horizontal-canal involvement was less frequent, and no anterior-canal cases were reported. No side predominance was observed. Most patients reportedly had complete resolution after canalith repositioning manoeuvres, with rare recurrence.

Conclusion: In this selected clinic-based sample, 60% of patients reported dizziness onset after a procedure. BPPV was the leading diagnosis and was generally reported to respond to canalith repositioning. The findings describe a temporal association and do not establish that surgery caused dizziness.

Keywords: *dizziness; vertigo; benign paroxysmal positional vertigo; surgery; vestibular disorders;* retrospective study

Introduction

Benign paroxysmal positional vertigo (BPPV) is the most common vestibular cause of vertigo and has a reported lifetime prevalence of 2.4%. [1] BPPV has also been reported after non-otologic procedures, including dental procedures and joint replacement. [2-3] A population-based case-control study reported increased odds of BPPV after dental procedures performed within the preceding one to three months. [2]

Potential explanations for dizziness after surgery include head positioning and prolonged bed rest, vibration transmitted by surgical instruments, and peri-anaesthetic effects. [2-3] These proposed mechanisms do not establish causation in an individual patient. Nevertheless, asking about recent procedures may be useful when evaluating new dizziness or imbalance.

The objective of this study was to determine the proportion of patients presenting to a vertigo and balance clinic whose dizziness reportedly began after a surgical procedure and to summarize the clinical patterns and outcomes documented in the clinic records.

Materials and Methods

Study design and setting

This retrospective, clinic-based study reviewed outpatient department records over a one-year period at RTKL Vertigo and ENT Clinic, Department of ENT, Mumbai, India. The exact dates of the review period should be specified in the final submission.

Participants

The records of 200 patients presenting with vertigo or balance complaints were included in the supplied study summary. The source material did not specify additional eligibility criteria, exclusions, or the method used to identify records for inclusion.

Clinical assessment and variables

The recorded assessment included a detailed history with specific attention to recent surgical procedures, clinical and neurotological examination, and positional testing of all three pairs of semicircular canals. Variables described in the source summary included the timing of symptom onset relative to surgery, preceding procedure type, vestibular diagnosis, canal involvement, laterality, and reported response to treatment.

Outcome and statistical analysis

The primary outcome was the proportion of clinic patients whose dizziness reportedly began after a surgical procedure. The source presentation reports a 95% CI calculated using the Wilson score method. The numerator, denominator, and reported interval are presented descriptively. Individual-level data were not available for independent verification or additional statistical analyses.

Results

Frequency and timing of post-surgical onset

Among 200 patients presenting with vertigo or balance complaints, 120 reported dizziness onset after a surgical procedure (60.0%; reported 95% CI, 53.1%–66.5%). The reported interval between the procedure and symptom onset ranged from two weeks to six months. The remaining 80 patients were categorized as having other onset histories in the source presentation.

Preceding procedures

Cataract surgery, total knee replacement, and dental procedures were identified as the most commonly reported preceding procedures. Procedure-specific frequencies were not provided; therefore, their relative contributions cannot be quantified.

Diagnosis and canal involvement

BPPV was reported as the most common diagnosis among patients with post-surgical onset. Posterior-canal BPPV was described as the most frequent pattern, horizontal-canal involvement as less frequent, and no anterior-canal cases were reported. No side predominance was observed. Exact counts and percentages for each diagnostic category and canal were not available in the supplied summary.

Treatment and outcome

The source presentation reports complete resolution in most patients following canalith repositioning manoeuvres and rare recurrence. Exact response rates, follow-up duration, and recurrence counts were not supplied.

Table 1. Summary of reported study findings.

Measure	Finding	Notes
Clinic sample	200 patients	Presented with vertigo or balance complaints
Dizziness onset after procedure	120/200 (60.0%)	Reported 95% CI: 53.1%–66.5%
Other onset history	80/200 (40.0%)	Category as shown in source presentation
Interval from procedure to onset	2 weeks to 6 months	Retrospectively reported
Most commonly reported preceding procedures	Cataract surgery; total knee replacement; dental procedures	Procedure-specific counts unavailable
Most common diagnosis	BPPV	Exact diagnostic distribution unavailable
Canal pattern	Posterior most frequent; horizontal less frequent; no anterior cases	Exact counts unavailable
Reported treatment outcome	Most resolved after repositioning; recurrence rare	No numerical follow-up data supplied

Abbreviations: BPPV, benign paroxysmal positional vertigo; CI, confidence interval.

Discussion

In this retrospective clinic-based sample, 60% of patients presenting with vertigo or balance complaints reported symptom onset after a surgical procedure. This estimate applies only to the selected patients seen at this clinic. It should not be interpreted as the incidence of dizziness among all surgical patients, nor does the temporal sequence establish a causal relationship.

BPPV was reported as the leading diagnosis in the post-surgical group. This observation is compatible with published reports describing BPPV after dental procedures and joint replacement. [2-3] Positioning, prolonged immobility, and procedural vibration have been proposed as possible mechanisms, but the present study did not directly test these mechanisms.

The reported improvement after canalith repositioning has practical relevance because BPPV is a treatable cause of positional vertigo. A history that includes recent surgery, combined with appropriate positional testing, may help identify patients who could benefit from targeted treatment. However, the absence of detailed diagnostic counts and standardized outcome measures limits the strength of conclusions about treatment effectiveness in this sample.

Strengths and Limitations

The study reflects routine clinical practice and reports positional assessment of all three pairs of semicircular canals. Its main limitations are the retrospective design, single-clinic setting, selection of patients already presenting with dizziness or balance complaints, and reliance on historical symptom timing. The source material does not provide exact study dates, detailed eligibility criteria, procedure-specific counts, complete diagnostic distributions, patient demographics, standardized follow-up duration, or numerical treatment and recurrence outcomes. These gaps prevent replication of the analysis and more detailed subgroup comparisons. The reported confidence interval should be checked against the final analytic dataset before submission.

Clinical Implications

Clinicians assessing dizziness may wish to ask about recent surgical and dental procedures and perform positional testing when indicated by the history and examination. BPPV should be considered among potential diagnoses, while persistent, atypical, or non-positional symptoms require evaluation for other vestibular and non-vestibular causes.

Conclusion

In this one-year retrospective clinic-based review, 120 of 200 patients (60.0%; reported 95% CI, 53.1%–66.5%) reported dizziness onset between two weeks and six months after a surgical procedure. BPPV was the leading diagnosis, posterior-canal involvement was most frequent, and most patients reportedly improved after canalith repositioning. These findings support asking about recent procedures during the assessment of dizziness, but do not establish that surgery caused the symptoms.

Conflicts of Interest and Sources of Funding

The authors state that there are no conflicts of interest to disclose. No special funding was received by the authors of this work.

References

1. von Brevern M, Radtke A, Lezius F, Feldmann M, Ziese T, Lempert T, et al. Epidemiology of benign paroxysmal positional vertigo: a population based study. J Neurol Neurosurg Psychiatry. 2007;78(7):710–715.

2. Chang TP, Lin YW, Sung PY, Chuang HY, Chung HY, Liao WL. Benign paroxysmal positional vertigo after dental procedures: a population-based case-control study. PLoS One. 2016;11(4):e0153092.

3. Bashir K, Yousuf A, Shahzad T, Khan K, Khuda Bakhsh Z. Benign paroxysmal positional vertigo after joint replacement surgeries: case series. Cureus. 2024;16(1):e51839.

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