

Spontaneous Hematotympanum in a Chronic Lymphocytic Leukemia Patient Receiving Ibrutinib: A Rare Bleeding Complication

İbrutinib Tedavisi Alan Kronik Lenfositik Lösemi Hastasında Spontan Hematotimpanum: Nadir Bir Kanama Komplikasyonu

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To the Editor,

We report an exceptionally rare case of spontaneous hematotympanum in a patient with chronic lymphocytic leukemia (CLL) undergoing treatment with ibrutinib [1,2,3,4]. Spontaneous hematotympanum, defined as blood accumulation in the middle ear without trauma, barotrauma, or surgical intervention, is an exceedingly uncommon clinical entity. Its occurrence in the context of ibrutinib therapy emphasizes the complex spectrum of bleeding complications in CLL patients [1].

A 73-year-old man with a history of hypertension and CLL had been receiving ibrutinib therapy for 12 months. He presented with sudden hearing loss, tinnitus, and vertigo. Oscopic examination revealed spontaneous accumulation of blood in the middle ear, consistent with hematotympanum. There was no history of trauma, barotrauma, or prior otologic procedures. Importantly, the patient was not receiving any anticoagulant or antiplatelet therapy.

The uniqueness of this case lies in the spontaneous nature of the hematotympanum. Hematotympanum is generally associated with trauma or surgical interventions and spontaneous occurrences are extremely rare [4]. The concurrent use of ibrutinib in this case adds further complexity.

Ibrutinib, a Bruton tyrosine kinase inhibitor, impairs platelet aggregation and alters the coagulation cascade, increasing the risk of bleeding. While minor mucocutaneous hemorrhages are common, atypical bleeding events such as spontaneous

hematotympanum are rarely documented. Our case illustrates the multifactorial interplay among CLL-related coagulopathy, targeted therapy, and hemostatic disruption.

Bleeding complications associated with ibrutinib are well recognized, with reported incidences of major bleeding ranging from 4% to 8% [2,3]. Mechanistically, ibrutinib inhibits platelet signaling pathways mediated via glycoprotein VI and collagen receptors, reducing platelet adhesion and aggregation [2]. The absence of anticoagulant or antiplatelet therapy in this case emphasizes that ibrutinib alone can precipitate rare spontaneous bleeding events, including in unusual sites such as the middle ear.

This report highlights the importance of recognizing rare bleeding presentations such as spontaneous hematotympanum in CLL patients receiving ibrutinib. Prompt identification and careful monitoring can guide appropriate management and optimize patient safety.

We hope that this case contributes to the growing awareness of unusual bleeding complications associated with targeted therapies in hematologic malignancies.

Keywords: Bleeding, Ibrutinib, Hematotympanum

Anahtar Sözcükler: Kanama, İbrutinib, Hematotimpanum

Ethics

Informed Consent: Written informed consent was obtained from the patient.

Footnotes

Authorship Contributions

Concept: S.Ü., M.Y., G.Y.; Design: S.Ü., M.Y., G.Y.; Data Collection and Processing: S.Ü., M.Y., G.Y.; Analysis or Interpretation: S.Ü., M.Y., G.Y.; Literature Search: S.Ü., M.Y., G.Y.; Writing: S.Ü.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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Received/Geliş tarihi: September 2, 2025

Accepted/Kabul tarihi: November 5, 2025

Epub: November 7, 2025

DOI: 10.4274/tjh.galenos.2025.2025.0374



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