JGPEMN
ISSN 2091-279X
eISSN 2362-1168

CASE REPORT

# Posterior epistaxis mimicking upper gastrointestinal bleeding – a diagnostic and airway management dilemma, a case report

Samir Kshetri[1], Daya Ram Lamsal[2], Rabin Bom[3], Kalyan Acharya[4], Roshim Shrestha[5], Ashish dip Poudel[6]

[1]MDGP&EM, DM EM Resident, [2]MDGP, [3]MDGP, DM EM, Chitwan Medical College & Teaching Hospital, Bharatpur, Chitwan, Nepal; [4]MD ENT resident, College of Medical Sciences & Teaching Hospital, Bharatpur, Nepal; [5]Medical Officer, Puspanjali Hospital, Bharatpur, Chitwan, Nepal; [6]Medical Officer, Madhyabindu Provincial Hospital, Nawalparasi (East), Nepal

Designation

Date of submission: 29 Sep 2025

Date of acceptance: 24 Nov 2025

Date of Publication: 31 Dec 2025

**Correspondence:**
Dr. Samir Kshetri
MDGP & EM, DM EM Resident, Chitwan Medical College & Teaching Hospital, Bharatpur, Chitwan, Nepal
**Email:** samirrkshetri@gmail.com

**How to cite:**
Kshetri S, Lamsal DR, Bom R, Acharya K, Shrestha R, Poudel AD. Posterior epistaxis mimicking upper gastrointestinal bleeding – a diagnostic and airway management dilemma, a case report. J Gen Pract Emerg Med Nepal. 2025 Dec;12(20):60-63.

**Online information**
**DOI:**
https://doi.org/10.59284/jgpeman378

OPEN ACCESS



## Abstract

Epistaxis is a common emergency, but posterior bleeds can be deceptive in comorbid patients, especially when hematemesis is present. This case report describes a 51-year-old male presenting with simultaneous epistaxis and hematemesis, creating a significant diagnostic challenge in differentiating an upper gastrointestinal (UGI) bleed from severe posterior epistaxis with swallowed blood. The situation was complicated by impending hemorrhagic shock and potential airway compromise. The definitive diagnosis and successful management were achieved using a Foley's catheter balloon tamponade, a simple yet life-saving intervention that resolved both the diagnostic uncertainty and the therapeutic emergency.

**Keywords:** Airway Compromise; Diagnostic Dilemma; Foley's Catheter Balloon Tamponade, Hemorrhagic Shock, Posterior Epistaxis, Upper Gastrointestinal Bleed

## INTRODUCTION

Nasal bleeding is usually easy to control, but in some cases, it can be severe and potentially dangerous.[1]Posterior epistaxis is a potent otorhinolaryngological emergency[2] and accounts for approximately 5% of all nasal bleeds.[3] Posterior nasal bleeds stem from deeper vascular structures, most notably the sphenopalatine artery, and tend to be more intense and challenging to manage compared to anterior bleeds.[1]When profuse, blood often flows posteriorly into the oropharynx and is swallowed, later presenting as hematemesis. This can mimic a primary UGI bleed, leading to misdiagnosis, delayed correct treatment, and inappropriate resource utilization. Secure airway management in these patients is paramount, but can be fraught with difficulty due to profuse bleeding obscuring the view. This case illustrates a classic dilemma and the role of a simple intervention in a complex presentation.

## CASE REPORT

A 51-year-old male, a priest from Gorkha, Nepal, was referred to our tertiary care center with a chief complaint of bleeding from the mouth and bilateral nostrils for six hours. The onset was acute at 2 AM during sleep. The patient woke up coughing, and his wife noticed profuse, continuous, dark red bleeding from both nostrils. Attempts to control it with pinching and cloth packing were unsuccessful and were followed by the onset of bleeding from the mouth. He reported two episodes of vomiting containing food particles mixed with blood. Initial management at a local hospital included antifibrinolytics, proton-pump inhibitors, antiemetics, and bilateral anterior nasal packing, but bleeding persisted. During ambulance transfer, he had five further episodes of profuse hematemesis. He was suffering from Type 2 Diabetes Mellitus for 20 years (on insulin and empagliflozin), hypertension for 15 years (on Amlodipine and losartan, and chronic kidney disease (CKD Stage IV eGFR 8.2ml/min/1.73m$^2$) for 1.5 years (on torsemide, not on dialysis). Status post bilateral cataract surgery, with residual visual impairment.

At our center, the Airway was patent but with a blood-stained oral cavity and bilateral anterior nasal packs in situ. Breathing: SpO2 96% on room air, clear breath sounds bilaterally. Circulation: Pulse 114 bpm (feeble), BP 110/70 mmHg, Capillary Refill Time >3 seconds, cold peripheries. Signs indicative of hypovolemic shock. Disability: Glasgow Coma Scale (GCS) 15 (E4V5M6), Gradual random blood sugar was high, bilateral pupils were normal. Exposure: pallor was present; blood-stained mouth; temperature 97.2°F.

No history of alcohol, smoking, melena, NSAID use, or nasal trauma. Resuscitation was initiated with two wide-bore IV cannulas, rapid infusion of Ringer's Lactate (2 pints), tranexamic acid 1gm, and sending urgent bloodwork for crossmatch and investigations.

Later on, there were two episodes of profuse hematemesis, strongly suggesting a primary bleeding source in the stomach or esophagus. Despite anterior packing, active bleeding continued, pooling in the oropharynx and trickling down the throat. The initial presentation with bilateral epistaxis was a crucial clue. The patient became increasingly lethargic and confused with a drop of GCS from 15 to 13 (E4V4M5). Combined with active oropharyngeal bleeding and a declining level of consciousness, the risk of aspiration and complete airway obstruction was imminent. The decision to secure the airway via endotracheal intubation was critical but posed a high risk due to potential difficulties with visualization caused by blood and a potentially difficult airway. The patient denied melena. However, his advanced diabetic retinopathy and bilateral cataract surgery-induced visual impairment made self-recognition of melena highly unreliable. Laboratory results confirmed significant blood loss with a hemoglobin of 6.6 g/dL.

An ENT consultation was sought. Given the high index of suspicion for uncontrolled posterior epistaxis as the primary source, a decision was made to perform a Foley's catheter balloon tamponade as both a diagnostic and therapeutic maneuver. As blood was observed from the right nostril, the right nostril was chosen for posterior nasal packing. A 12Fr Foley's catheter was lubricated and advanced through the right nostril along the nasal floor to the nasopharynx (~10 cm). The balloon was inflated with 10 ml of distilled water and gently retracted to lodge snugly against the posterior choanae. It was secured externally with a knot and an umbilical clamp. Bilateral anterior packing was reinforced.

**Figure 1. Posterior nasal packing with a Foley's balloon catheter**

The procedure was immediately successful. The bleeding from the mouth and oropharynx ceased completely, confirming the diagnosis of posterior epistaxis and definitively ruling out a concurrent major UGI bleed. This also resolved the airway compromise, as the bleeding source

was controlled and 1 pint of whole blood was transfused in the emergency department.

**Figure 2. After the removal of Foley's balloon tamponade**

The patient was admitted to the Surgical ICU (SICU) under the ENT department for monitoring. He received one pint of whole blood transfusion at SICU. The Foley's tamponade was left in place for 48 hours and removed without any re-bleeding (Figure II). Consultations from Nephrology and Endocrinology managed his comorbidities. Ophthalmology review diagnosed advanced bilateral diabetic eye disease. He was discharged after a 5-day hospital stay in stable condition, with arrangements for follow-up in the ENT, Nephrology, and Endocrinology clinics.

## DISCUSSION

Posterior epistaxis is more common in older adults and those with underlying conditions such as hypertension, diabetes, and Chronic kidney disease because of the deep, high-pressure arterial supply from the sphenopalatine artery and the fragile mucosa in the posterior nasal cavity.[1,4] High urea levels interfere with platelet aggregation, resulting in platelet dysfunction and bleeding.

Posterior epistaxis must be a primary differential in any patient presenting with hematemesis, especially if accompanied by any history of nasal bleeding.[4]Failure to recognize this may result in delayed and inappropriate treatment. [5] The best way to determine the bleeding source in difficult cases is to place bilateral anterior nasal packing and to examine the patient. Brisk bleeding despite proper packing strongly suggests a posterior source. In active hemorrhage, securing the airway is the top priority. However, profuse bleeding can make rapid-sequence intubation hazardous. Foley's tamponade can control the bleeding source, making the airway safer to manage.[6] As demonstrated, a Foley's catheter is a readily available, simple, and effective tool for managing posterior epistaxis.[6] It serves a dual purpose: it is diagnostic (cessation of hematemesis confirms a nasal source) and therapeutic (it controls the bleed). If a Foley catheter is used and secured with an umbilical-type clamp, positioning of the clamp away

**Table 1. Laboratory investigation**

| Lab investigation | Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|---|
| Hb | 6.6gm/dl (8:28 am), 7.1gm/dl (7:37 pm) | 6.1gm/dl (2 am), 7.6gm/dl (2 pm) | 7.3gm/dl | |
| PCV | 20% | 17.7% | | |
| WBC | 9,660/cumm | 14,250/cumm | | |
| Neutrophils/Lymphocytes | 89.9%/5.2% | 80.7%/10.1% | | |
| Platelets | 240,000/cumm | 178,000/cumm | | |
| Blood Sugar | RBS: 599 mg/dL | FBS: 121 mg/dL | PP: 264 mg/dL | |
| Urea | 210 mg/dL | 248 mg/dL | 216 mg/dL | |
| Creatinine | 7.13 mg/dL | 7.03 mg/dL | 6.37 mg/dL | |
| Urine RME | Pus cell: 2-4/HPF | | | |
| Albumin | Trace | | | |
| Glucose | ++ | | | |
| PT/INR | 15.1 sec/1.17 | | | |
| Sodium (Na+) | 134 mmol/L | 134 mmol/L | 140 mmol/L | |
| Potassium (K+) | 4.77 mmol/L | 4.62 mmol/L | 4.22 mmol/L | |
| ALT/AST | 15/12 IU/L | | | |
| Uric Acid | | 11.8 mg/dL | | |
| Calcium | | 6.8 mg/dL | | |
| Phosphate | | 8.1 mg/dL | | |
| HbA1c | | 8.6% | | |
| TSH | | | | 2.778 µIU/mL |
| Urinary Acetone | Negative | | | |

from the nasal ala is essential to prevent pressure necrosis of this area.[2] This patient's diabetes (with visual impairment to recognize malena), hypertension, and CKD contributed to the complexity.

## CONCLUSION

Posterior epistaxis can closely mimic upper gastrointestinal bleeding mostly in comorbid patient. This case underscores the importance of careful history-taking and clinical vigilance. Foley's balloon tamponade served as a simple, low-cost, and life-saving intervention—resolving both diagnostic confusion and the threat of airway compromise.

## DECLARATIONS

### Acknowledgement
None

### Conflict of Interest
None

### Funding
None

### Ethical Clearance
Ethical clearance from IRC was not required in this case.

### Consent of the Study
A signed consent was taken from the patient regarding the publication of the case report.

## REFERENCESS

1. HALLBERG OE. Severe nosebleed and its treatment. J Am Med Assoc.| DOI | PubMed | Google Scholar |
2. Tunkel DE, Anne S, Payne SC, Ishman SL, Rosenfeld RM, Abramson PJ, et al. Clinical Practice Guideline: Nosebleed (Epistaxis). Otolaryngol--head neck surg [Internet]. | DOI | Google Scholar |
3. Viducich RA, Blanda MP, Gerson LW. Posterior epistaxis: clinical features and acute complications. Ann Emerg Med. 1995 May;25(5):592-6. | DOI | PubMed | Google Scholar | Full Text |
4. Kim S. Life-Threatening Posterior Epistaxis Masquerading as Upper Gastrointestinal Bleeding Treated with Endoscopic Sphenopalatine Artery Ligation [Internet]. | DOI | Google Scholar |
5. AlRajabi A, AbuIrayyeh BM, Shawabka AM, Jabari AY, Jabari SD, Ibraheem K. Posterior Epistaxis Presenting as Upper GI Bleeding in A Healthy 21-Year-Old Patient: A Case Report. Clinical Case Reports. 2025 Apr;13(4):e70355. | DOI | PubMed | Google Scholar | Full Text |
6. Leadon M, Hohman MH. Posterior Epistaxis Nasal Pack. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 [cited 2025 Sept 1]. | Google Scholar |