International Journal of Otorhinolaryngology and Head and Neck Surgery
Gad M et al. Int J Otorhinolaryngol Head Neck Surg. 2026 Aug;12(4):669-674
https://www.ijorl.com
pISSN 2454-5929 | eISSN 2454-5937
DOI: https://dx.doi.org/10.18203/issn.2454-5929.ijohns20261864

Case Report

Late-diagnosed unilateral choanal atresia in a geriatric patient: a case report and literature review

Mohamed Gad[1], Ahmed Alomairin[1], Asmah Alhubaishi[2]*, Rahaf Alhajji[3]

[1]Department of Otolaryngology-Head & Neck, John Hopkins Aramco Healthcare, Dhahran, Saudi Arabia
[2]Department of Emergency, King Fahad Hospital Al Hofuf, Saudi Arabia
[3]Department of Emergency, Prince Saud Bin Jalawy Hospital - Alahsa, Saudi Arabia

Received: 24 May 2026
Accepted: 09 June 2026

***Correspondence:**
Dr. Asmah Alhubaishi,
E-mail: asmaalhubishi1@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Choanal atresia (CA) is a rare congenital bony or membranous occlusion of the posterior nasal passage. Unilateral cases often evade detection until late life due to compensatory mechanisms and subtle symptoms, rendering diagnoses beyond the seventh decade exceptionally uncommon, with fewer than 20 cases reported in the literature. We present the case of a 77-year-old woman with a decades-long history of intermittent left-sided nasal congestion. Diagnostic nasal endoscopy revealed complete bony obstruction of the left choana, confirmed by computed tomography, which showed an isolated unilateral CA without syndromic features or comorbid sinonasal disease. A multidisciplinary evaluation deemed surgical correction unnecessary, given her minimal functional impairment, advanced age, and satisfaction with daily activities. Conservative management with saline irrigation and observation was selected, and the patient remained stable at the 6-month follow-up. This case highlights the diagnostic challenges associated with unilateral CA in older adults. It supports symptom-guided, individualized management over routine interventions in low-risk geriatric patients, as informed by a review of historical and contemporary strategies.

Keywords: Choanal atresia, Nasal obstruction, Elderly, Case report

INTRODUCTION

Choanal atresia (CA) is a rare congenital anomaly characterized by bony or membranous occlusion of the posterior nasal aperture. The overall incidence of CA or stenosis is approximately 0.92 per 10,000 live births, with isolated (non-syndromic) cases comprising 0.37 per 10,000.[1] Unilateral CA accounts for 60-75% of all cases and is more often right-sided, reflecting embryologic developmental asymmetries.[2-4]

The clinical presentation varies markedly according to laterality and age at diagnosis. Bilateral CA manifests as a neonatal emergency, with obligate nasal breathing leading to respiratory distress and cyclic cyanosis.[5] In contrast, unilateral CA rarely compromises neonatal airway patency because of contralateral compensation, often delaying diagnosis until childhood or adolescence. Affected individuals typically report persistent unilateral nasal obstruction and mucopurulent discharge.[6] Adult presentations are even rarer, with symptoms evolving into chronic, nonspecific complaints such as lifelong rhinorrhea, intermittent obstruction, snoring, or fatigue, which are frequently misattributed to allergic rhinitis or chronic rhinosinusitis.[7,8]

Diagnosis of CA relies on nasal endoscopy for direct visualization of the atretic plate, with paranasal sinus computed tomography (CT) as the gold standard for confirmation, delineating bony (90% of unilateral cases) versus membranous types, vomer thickness, and pterygoid plate morphology.[9-11] Management traditionally involves transnasal endoscopic repair, the preferred approach for symptomatic patients, although

heterogeneity persists in techniques, stenting, and adjuncts such as mitomycin-C.[12,13]

This report details an unusually late unilateral CA diagnosis in a 77-year-old woman managed conservatively, illuminating the diagnostic hurdles in geriatrics and reinforcing individualized, symptom-driven care.

CASE REPORT

This case report details the clinical presentation of a 77-year-old female patient with a medical history of hypertension, type 2 diabetes, and bronchial asthma, who was referred to the otolaryngology clinic for assessment of nasal obstruction. The patient has experienced a long-standing, intermittent left-sided nasal obstruction, occasionally accompanied by headaches. The symptoms have been non-progressive and persistent over time. The patient reported an absence of associated rhinorrhea, postnasal drip, facial pain, epistaxis, anosmia, or recurrent upper respiratory tract infections. Furthermore, she denied any history of nasal trauma or previous sinonasal surgery.

Treatment and management

The patient underwent a flexible fiberoptic nasal endoscopy. Upon suctioning a whitish mucous plug from the left nasal cavity, a complete posterior obstruction was identified, which could not be traversed endoscopically. The right nasal cavity was patent, and the remainder of the ear, nose, and throat examination, including otoscopic and oropharyngeal assessments, was unremarkable.

Based on the endoscopic findings, a structural etiology for the unilateral nasal obstruction was hypothesized. A non-contrast CT scan of the paranasal sinuses was conducted for further assessment, revealing mixed osseous and membranous atresia. Axial CT images illustrated a blind-ending left posterior nasal cavity with complete osseous membranous obstruction at the choanal level, indicative of left CA (Figure 1). Coronal images further depicted posterior vomer thickening with a patent contralateral choana and showed no evidence of sinonasal masses, mucosal disease, or inflammatory pathology (Figure 2). Sagittal reconstructions confirmed the absence of communication between the left nasal cavity and the nasopharynx, clearly delineating the atretic plate (Figure 3).

Upon follow-up, the patient reported satisfactory nasal breathing and a minimal burden of symptoms. Surgical intervention was deemed unnecessary due to the patient's advanced age, long-standing adaptation, and lack of significant functional impairment. Consequently, the patient was managed conservatively and discharged with routine follow-up instructions, with advice to return if symptoms progressed.



Figure 1: Axial non-contrast CT image of the paranasal sinuses demonstrating a blind-ending left posterior nasal cavity with complete osseous membranous obstruction at the level of the choana, consistent with left unilateral CA.

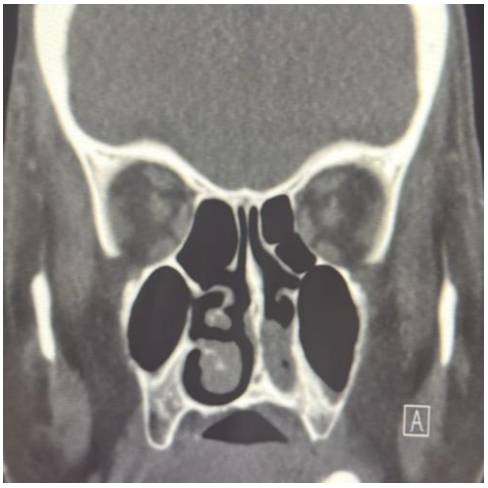


Figure 2: Coronal non-contrast CT image showing thickening of the posterior vomer with absence of communication between the left nasal cavity and the nasopharynx, while the contralateral choana remains patent. No sinonasal masses, mucosal thickening, or inflammatory changes are identified.

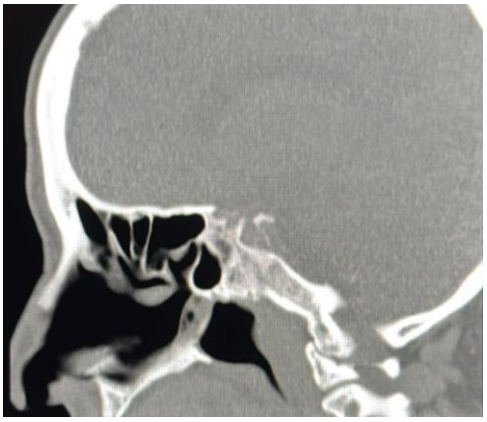


Figure 3: Sagittal CT reconstruction confirming complete left CA, with clear delineation of the atretic plate and absence of posterior nasal airflow into the nasopharynx.

Literature review

Reported cases of CA across age groups

CA has been documented across a broad age range in the literature, from early childhood to late adulthood.[4,7,8,14-24] Diagnoses have been recorded in patients as young as 6 years and as old as 65 years at the time of presentation.[15,17] Several studies indicate delayed diagnosis into adolescence and adulthood, particularly in cases of unilateral disease.[7,20] Adult presentations have been reported in various geographic regions, including Australia, Turkey, Saudi Arabia, India, Portugal, Syria, and Pakistan, highlighting the global prevalence of delayed diagnosis.[4,7,14,17,20,23] Across reported cases, unilateral CA is more prevalent than bilateral disease in adolescents and adults, with a predominance of right-sided involvement, although left-sided cases have also been observed.[14,18,20-23] Bilateral CA diagnosed beyond the neonatal period is rare but has been reported in adults aged 38 to 65 years, often associated with lifelong symptoms and adaptive breathing mechanisms.[4,8,17,22]

Unilateral CA and delayed diagnosis

Unilateral CA is often associated with a delay in diagnosis. Patients typically exhibit long-standing, mild, or nonspecific symptoms that do not prompt early investigation.[20,24] Common complaints in unilateral cases include chronic unilateral nasal obstruction, persistent rhinorrhea, headache, and, less frequently, hyposmia or facial discomfort.[15,20,21] Several reports describe symptoms persisting for years or even decades before diagnosis, particularly in cases where the contralateral choana remains patent and compensatory nasal breathing is possible.[7,14,23] Right-sided unilateral CA appears to be more commonly reported in the literature; however, several left-sided cases have also been documented.[14,16,18,20,21]

Bilateral CA beyond the neonatal period

Bilateral CA, when diagnosed beyond the neonatal phase, is an uncommon occurrence. Nonetheless, there have been instances reported in both adolescents and adults who have managed to survive infancy by adapting through compensatory mouth breathing and gradual acclimatization.[4,8,17,22] In adults, the age at which diagnosis occurs has been documented to range from 38 to 65 years, with symptoms typically including persistent nasal blockage, anosmia, and chronic nasal discharge.[4,8,17] In contrast to unilateral cases, bilateral instances are often characterized by a more pronounced symptomatology, which eventually necessitates diagnostic investigation despite the individual's long-term adaptation.[17,22]

Diagnostic modalities used in reported cases

Nasal endoscopy served as the primary diagnostic modality in the reported cases, facilitating direct visualization of the blind-ending nasal cavity and the exclusion of alternative obstructive pathologies.[7,21,23] Additionally, CT of the paranasal sinuses was employed to confirm the diagnosis, classify the atresia as bony, membranous, or mixed, and evaluate associated anatomical features.[8,17,18,20,22] Several reports have underscored common diagnostic challenges, including misdiagnosis as chronic rhinosinusitis, septal deviation, turbinate hypertrophy, or allergic rhinitis, particularly in unilateral cases with mild or intermittent symptoms.[15,21,23,24] In some earlier cases, additional investigations such as contrast studies, choanography, or nasal catheterization were utilized prior to the widespread availability of high-resolution CT imaging.[19,24]

Management approaches reported in the literature

The majority of reported cases across all age groups were managed surgically, with endoscopic transnasal or transseptal approaches being the most commonly employed techniques.[7,18,20,21] Transpalatal approaches were less frequently described and were primarily utilized in earlier reports or in cases involving thick bony atresia.[14,19,24] Additionally, posterior septectomy was often incorporated in endoscopic repairs to enhance surgical exposure and mitigate risk of restenosis.[17,18,20,21]

The practice of postoperative stenting shows considerable variation, with some researchers advocating for routine stent placement over several weeks, while others have reported successful outcomes without employing stents.[7,8,15,20] Selective use of adjunctive techniques, including topical mitomycin C, mucosal flap reconstruction, and silicone splints, is employed to maintain patency and minimize risk of scar formation.[7,17,18]

Non-operative and conservative management in reported cases

The non-operative management of CA is rarely discussed in the literature, particularly concerning adolescents and adults who present with unilateral disease and exhibit minimal symptoms.[23]

In few documented cases, selection of conservative management is predominantly driven by the patient's preference or their decision to opt out of surgical procedures, rather than being endorsed as the primary therapeutic approach (Table 1).[23]

Reported outcomes and follow-up

The majority of surgically treated cases demonstrated positive outcomes, with sufficient choanal patency and either resolution or improvement of symptoms observed over follow-up durations ranging from several months to multiple years.[8,14,15,20,21] Recurrence or restenosis was rare, but it was noted in isolated cases, especially when posterior septectomy was not initially conducted or when stenting methods were suboptimal.[20] Long-term follow-up data were inconsistently reported, with several case studies lacking comprehensive outcome documentation beyond the early postoperative phase.[21,23]

Table 1: Detailed summary of the reported cases.

Study	Country	Study type / N	Age (in years)	Sex	Laterality	Symptoms	Management	Outcome / follow-up
Index case	Saudi Arabia	Case report/1	77	F	Unilateral left	Intermittent left obstruction + headache; minimal symptoms	Conservative	Stable; discharged with follow-up
Shute 2020-case 1	Australia	Series/4	37	F	Unilateral right	Chronic rhinorrhea + obstruction	Endoscopic trans-septal + posterior septectomy; no stent	Resolved; patent at 6 months
Shute 2020-case 2	Australia	Series/4	65	M	Unilateral right	Rhinorrhea + obstruction + osa	Endoscopic trans-septal + no stent	Resolved; no restenosis at 6 months
Shute 2020-case 3	Australia	Series/4	28	F	Unilateral right	Obstruction + purulent rhinorrhea + facial pain + hyposmia	Endoscopic transnasal + posterior septectomy; no stent	Patent at 5 months
Shute 2020-case 4	Australia	Series/4	55	F	Unilateral right	Long history obstruction + purulent rhinorrhea	Endoscopic drilling; airway stent initially → revision + posterior septectomy + splints 4 w	Recurrence at 12 mo; durable patency after revision
Sunil 2020	India	Case report/1	23	M	Unilateral right	Mucoid discharge + headache; obstruction on questioning	Endoscopic recanalization + posterior septum resection (uni-choana); no stent	Nr
Yosunkaya 2020	Turkey	Case report/1	62	F	Unilateral right	Congestion + abundant mucoid secretion	Conservative (surgery recommended, declined)	Nr
Ferraria 2017	Portugal	Case report/1	48	F	Unilateral right	Lifelong fatigue + clear mucoid discharge	Endoscopic transseptal + transnasal; mitomycin c; no stent	Improved; patent at 1 year
Ajmal 2008	Pakistan	Case report/1	17	M	Unilateral left	Discharge + blockage + frontal headache + ↓hearing	Transpalatal + et tube stent 6 w	Adhesions at 1 month → treated; patent thereafter
Abraham 2023	Tanzania	Case report/1	15	M	Unilateral left	Discharge + epistaxis + foul smell	Endoscopic release + rhinolith removal; no stent	Healed at 3 months
Kadasah 2024-case 1	Saudi Arabia	Series/2	21	F	Unilateral left	Obstruction + discharge	Endoscopic repair + posterior septectomy (day surgery)	Patent; satisfied at 1 month
Kadasah 2024-case 2	Saudi Arabia	Series/2	17	M	Unilateral left	Obstruction + headache	Endoscopic drilling + posterior septectomy + septoplasty; splints 10 day	Patent; follow-up up to 1 year
Thaller 1998	Nr	Case report/1	15	F	Unilateral right	Blockage + persistent mucoid discharge	Transpalatal; stenting advised	Symptom-free at 1 year
Tatar 2012	Turkey	Case report/1	53	F	Bilateral	Obstruction + continuous discharge	Endoscopic transnasal + drilling; stents 6 w	Adequate openings at 1 yr
Mengi 2021	Turkey	Case report/1	60	M	Bilateral	Discharge + congestion + snoring + ↓smell/taste	Endoscopic transnasal + right stent 3 w	Adequate openings at 1 yr
Al Qout 2015	Saudi Arabia	Case report/1	65	F	Bilateral	Lifelong obstruction + anosmia + intermittent discharge	Endoscopic transseptal (killian) + posterior septectomy + mucosal flap + breathable sheets	Asymptomatic; patent at 3 months
Al-Ghabra 2025	Syria	Case report/1	38	F	Bilateral	Lifelong obstruction + rhinorrhea + anosmia + otorrhea	Endoscopic reconstruction + tracheal stents 30 day	Patency at 1 month
Mohammadi 2009	Iran	Series/11	11-15	7f/4 m	Unilateral (7 r, 4 l)	Discharge + snoring + blockage	3 transpalatal; 8 endoscopic transnasal	Patent; no complications
Sajitha 2015-case 1	India	Series/2	24	M	Unilateral right	Obstruction + rhinorrhea + hyposmia	Transnasal endoscopic + microdebrider + et stent 6 w + septoplasty + fess	Patent at 1 year
Sajitha 2015-case 2	India	Series/2	6	F	Unilateral right	Obstruction + discharge + mouth breathing	Transnasal endoscopic + et stent 6 w + adenotonsillectomy	Patent at 1 year

*F: female; M, male; L, left; R, right; OSA, obstructive sleep apnea; CT, computed tomography; ET, endotracheal; FESS, functional endoscopic sinus surgery; NR, not reported.

DISUCSSION

CA demonstrates a well-documented dichotomy in clinical presentation based on laterality. Bilateral CA results in immediate neonatal respiratory distress, whereas unilateral CA permits long-term physiological adaptation.[4,17,25] Although diagnostic criteria are well established, focusing on the failure of catheter passage, nasal endoscopy, and computed tomography, unilateral cases remain frequently underdiagnosed.[5,26] This diagnostic trend in unilateral CA is attributed to a combination of anatomical compensation and progressive behavioral adaptation rather than complex anatomical structures. The capacity to sustain adequate ventilation through a single patent choana allows survival without acute respiratory distress, even from infancy, resulting in mild or nonspecific symptoms.[11,17,26,27] Over time, compensatory mouth breathing further reduces symptom severity, leading to the misattribution of symptoms to chronic inflammatory or structural nasal conditions.[17,20,21] The present case exemplifies this mechanism, wherein effective long-term adaptation facilitated survival into advanced age with minimal symptomatology.

Computed tomography remains a fundamental tool for anatomical evaluation, revealing distinctive features such as posterior vomer thickening and medialization of the pterygoid plates, with the majority of cases exhibiting mixed bony-membranous atresia.[7,20,26] In cases of long-standing disease, these characteristics likely represent stable congenital anatomy rather than progressive remodeling.[11,21] Notably, the severity observed radiologically does not consistently correlate with clinical symptoms, particularly in unilateral cases.[26] This dissociation is evident in the present case, where complete anatomical obstruction coexisted with preserved functional tolerance and minimal symptoms.

Surgical intervention is reported as the definitive treatment for symptomatic CA, with endoscopic transnasal repair currently preferred due to its association with reduced morbidity and favorable outcomes.[5,15,26] Alternative approaches are typically reserved for cases involving complex anatomy or revisions, underscoring the importance of individualized surgical planning.[14,17,20] Nevertheless, the literature predominantly exhibits a bias towards surgical intervention, with limited exploration of non-operative strategies. In contrast, the present case demonstrates that surgery may not be necessary for patients with minimal symptoms.

The use of postoperative stenting and adjunctive therapies remains a contentious issue, with no established consensus on their routine implementation or effectiveness.[12,13] Research suggests that the presence of foreign-body irritation and exposed bone surfaces may facilitate the development of granulation tissue and restenosis, potentially undermining the anticipated benefits.[12,16] The absence of definitive evidence favoring stented or adjuvant-based strategies emphasizes the need for a selective rather than a routine approach. With our patient, a conservative strategy effectively mitigates these risks, reinforcing the value of personalized management. Non-operative management of CA is seldom reported, as the majority of literature focuses on surgical correction and patency outcomes.[7,26] When documented, conservative management is generally restricted to adults with mild symptoms or those declining surgery, leaving the natural progression of untreated disease inadequately characterized.[23] This gap underscores the necessity for cautious, symptom-oriented decision-making rather than interventions based solely on anatomical considerations. The current case offers direct clinical evidence that conservative management can be suitable for carefully selected elderly patients.

Clinical implications and future directions

This case underscores the critical need to maintain a high index of suspicion for CA in patients of all ages who present with persistent unilateral nasal obstruction, even in absence of severe or progressive symptoms. Routine application of nasal endoscopy in evaluating refractory unilateral nasal complaints may mitigate diagnostic delays and prevent misattribution to more common inflammatory or structural conditions. The findings further highlight that radiological completeness of obstruction does not necessarily correlate with symptom severity, particularly in unilateral cases, emphasizing importance of prioritizing functional assessment and patient-reported outcomes in clinical decision-making.

From a management perspective, this case advocates for a more individualized approach, especially in elderly or minimally symptomatic patients, where conservative management may be appropriate to avoid unnecessary surgical risks. Shared decision-making should incorporate symptom burden, patient preferences, comorbidities, and anticipated quality-of-life benefits rather than relying solely on anatomical findings. Future research should aim to systematically document conservatively managed adult cases to better define the natural history of untreated unilateral CA and to develop evidence-based guidelines for patient selection, surveillance strategies, and long-term outcomes beyond surgical patency rates.

CONCLUSION

Unilateral CA may remain undiagnosed into advanced adulthood due to effective physiological adaptation and minimal symptom burden. This case demonstrates that conservative management can be a valid option in carefully selected elderly patients. Clinicians should consider CA in the differential diagnosis of persistent unilateral nasal obstruction and adopt individualized, symptom-driven management strategies rather than routine surgical intervention.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Benjamin RH, Marengo LK, Scheuerle AE, Agopian AJ, Mitchell LE. Prevalence and descriptive epidemiology of choanal atresia and stenosis in Texas, 1999-2018. Am J Med Genetics Pt A. 2024;194(6):e63549.
2. Durmaz A, Tosun F, Yldrm N, Sahan M, Kvrakdal C, Gerek M. Transnasal endoscopic repair of choanal atresia: results of 13 cases and meta-analysis. J Craniofac Surg. 2008;19(5):1270-4.
3. Gujrathi CS, Daniel SJ, James AL, Forte V. Management of bilateral choanal atresia in the neonate: an institutional review. Int J Pediatr Otorhinolaryngol. 2004;68(4):399-407.
4. Al-Ghabra Y, Issa A, Ziadeh K, Ashrefa R, Mohsen ABA. Bilateral choanal atresia in an adult: a rare case report and a literature review. Otolaryngol Case Rep. 2025;36:100677.
5. Urbančič J, Vozel D, Battelino S, Boršoš I, Bregant L, Glavan M, et al. Management of Choanal Atresia: National Recommendations with a Comprehensive Literature Review. Children. 2023;10(1):91.
6. Duggal P, Kajol R, Duggal KK. Unilateral choanal atresia: Presentation in adults. Indian J Otolaryngol Head Neck Surg. 2005;57(4):345-7.
7. Ferraria L, Alves S, Rosa H, Santos M, Antunes L. Unilateral Congenital Choanal Atresia in a 48-Year-Old Patient. Int J Otorhinolaryngol Clin. 2017;9(1):28-31.
8. Mengi E. Bilateral choanal atresia in a 60-year-old man: A case report and review of the literature. North Clin Istanbul. 2020;8(5):525-8.
9. Al-Noury K, Lotfy A. Role of multislice computed tomography and local contrast in the diagnosis and characterization of choanal atresia. Int J Pediatr. 2011;2011:280763.
10. Šebová I, Vyrvová I, Barkociová J. Nasal Cavity CT Imaging Contribution to the Diagnosis and Treatment of Choanal Atresia. Medicina (Kaunas). 2021;57(2):93.
11. Messineo D, Chernikava M, Pasquali V, Bertin S, Ciotti M, De Soccio G, et al. Radiological Parameters Review for Choanal Atresia. Pediatric Rep. 2021;13(2):302-11.
12. Gundle L, Ojha S, Hendry J, Rosen H. Stenting versus stentless repair for bilateral choanal atresia: A systematic review of the literature. Int J Pediat Otorhinolaryngol. 2021;151:110926.
13. Ouattassi N, Wissam El, Asmae A, Zaki Z, El Alami MN. Current Management of Congenital Choanal Atresia: Litteratur Review. Indian J Otolaryngol Head Neck Surg. 2023;75(3):2227-34.
14. Najeeb T, Ajmal M. Choanal Atresia Treated with Transpalatal Approach. J Coll Physicians Surg Pak. 2008;18(12):776-7.
15. Sajitha KB, Ihsan AT. Unilateral choanal atresia-presentation in varied age groups. JEMDS. 2015;04(18):3178-82.
16. Abraham ZS, Kahinga AA. Unilateral choanal atresia and a co-existent long-standing medium-sized ipsilateral rhinolith in a 15-year old boy: Case report and literature review. Int J Surg Case Rep. 2023;105:107999.
17. Qout MA, Alkarni A, Alaraifi A, Almahdi M. Bilateral Choanal Atresia in a 65-Year-Old Female: A Case Report and Literature Review. Case Rep Otolaryngol. 2025;2025:5584900.
18. Kadasah S, Qahtani AA, Al-Sayed G, Helali AA, Aldhabaan S, Musleh A, et al. Unilateral Choanal Atresia in Adults: A Case Series. IJOHNS. 2024;13(03):187-93.
19. Mohammadi G. Unilateral choanal atresia in adults. Pak J Med Sci. 2009;25(5):875-7.
20. Shute WG, Wong EH, Agar NJM, Singh NP. Unilateral choanal atresia first diagnosed in adulthood and repaired via endoscopic posterior septectomy-a case series and review of the literature. Aust J Otolaryngol. 2021;4:0-0.
21. Sunil KC, Praveen Kumar BY, Mali K, M. K. VR. Unusual presentation of a unilateral choanal atresia in an adult: a case report. Int J Otorhinolaryngol Head Neck Surg. 2020;6(4):780.
22. Tatar EÇ, Özdek A, Akcan F, Korkmaz H. Bilateral congenital choanal atresia encountered in late adulthood. J Laryngol Otol. 2012;126(9):949-51.
23. Yosunkaya MT. Unilateral Choanal Atresia in a 62 Years Old Patient. Am J Rare Dis Diagn Ther. 2020;3(1):1-3.
24. Thaller SR, Kawamoto HK. Unilateral choanal atresia in adults: a new surgical approach. Ann Plast Surg. 1988;20:356-9.
25. SciELO Brazil-Atresia coanal bilateral em paciente de 34 anos Atresia coanal bilateral em paciente de 34 anos. Available at: https://www.scielo.br/j/aio/a/sjjFXzbmb8RBPj4hmtBdVTx/abstract/?lang=en. Accessed on 02 February 2026.
26. Achour I, Kharrat I, Ayed MB, Thabet W, Bouraoui A, Mnejja M, et al. Choanal atresia: Diagnosis and management. J Tun Orl. 2023;49:33-8.
27. Andaloro C, Winters R, Mantia IL. Choanal Atresia. StatPearls: StatPearls Publishing; 2025.

Cite this article as: Gad M, Alomairin A, Alhubaishi A, Alhajji R. Late-diagnosed unilateral choanal atresia in a geriatric patient: a case report and literature review. Int J Otorhinolaryngol Head Neck Surg 2026;12:669-74.