

Ruptured Nasolabial Cyst, A Rare Cause of Epistaxis: A case report

¹Momand Sadaqat and ²Shinwari Muhibullah

¹MD, MS-ENT, Teaching Assistant, Department of ENT, Nangarhar University Teaching Hospital, Nangarhar, Afghanistan.

²MD, Associate Prof, Medical Faculty, Department of Physiology, Nangarhar University, Nangarhar, Afghanistan

Abstract

The nasolabial cyst is an uncommon soft tissue lesion occurred anterior to maxilla on floor of the nasal vestibule. It is relatively common in female adults, mostly presents as a cosmetic concern due to bulging of the nasolabial fold as well as nasal blockage and pain in some cases. Epistaxis was not previously reported as a symptom of nasolabial cyst. In this article, we present a case of a long standing nasolabial cyst in a young boy presented with epistaxis. A 13-years old boy presented to ENT OPD of Nangarhar University Teaching Hospital with active nasal bleeding. The patient complained of a bulge below right side of the nose above the upper lip for the last four years increased gradually, associated with nasal blockage for the last one year and accompanied by intermittent nasal bleeding for the last 3 months with no history of trauma. There was marked asymmetry of the face with a blood clot in the right nostril. On anterior rhinoscopy, after cleaning the nose, a soft mass was seen in right nasal vestibule ruptured at its center extending to maxillary region at the level of nasolabial fold through a track associated with corresponding bulge on the same sided gingivobuccal sulcus. A soft tissue density mass lesion seen on right sided alar region on CT scan without ant bony involvement. The patient underwent surgical excision of the mass through a sublabial incision. The diagnosis was confirmed by histopathology. No recurrence was noted after 6 months of treatment. In light of literature review and the current case report we conclude that the patients with nasolabial cyst presents with facial deformity and nasal blockage, but long standing cysts can be presented with nasal bleed.

Keywords: Nasolabial cyst, Nasolalveolar cyst

Article Publication

📅 Published Online: 20-Jul-2021

*Author's Correspondence

👤 Momand Sadaqat

👤 MD, MS-ENT, Teaching Assistant, Department of ENT, Nangarhar University Teaching Hospital, Nangarhar, Afghanistan

✉ momandsadaqat@gmail.com

🔗 [10.31305/rrjim.2021.v06.i07.011](https://doi.org/10.31305/rrjim.2021.v06.i07.011)

© 2021 The Authors. Published by RESEARCH REVIEW International Journal of Multidisciplinary. This is an open access article under the CC BY-

NC-ND license 

(<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Introduction:

The nasolabial cyst was known in 1882 for the first time, by Zuckerkandle. It is basically a non-odontogenic fissural cyst taking place in soft tissues anterior to maxilla at the level of nasolabial fold (Pereira, 2002). The cyst is also recognized as nasoalveolar cyst, nasal vestibular cyst, nasal wing cyst and Klestadt's cyst (Tiago, 2008). It is a rare disorder with prevalence of 1.6 per 100000 person per year. Mostly, it presents unilaterally, but bilateral cases are reported as well (Marcoviceanu, 2009; Abou, 1999; Bijou, 2021). The patients with nasolabial cysts usually presents in their fourth or fifth decade of life with a female predominance (Akin, 2020). The patients with nasolabial cysts usually present with facial deformity and nasal blockage with no or mild pain, while epistaxis is not a usual complaint of these patients. The patients usually pursue the treatment to get rid of facial deformity, before complicating the cyst. Sometimes, the patients with small nasolabial cysts are incidentally diagnosed during nasal examination for other purposes (Akin, 2020). The cyst is diagnosed in light of clinical manifestations, but flexible nasal endoscopy, Computed tomography and Magnetic Resonance Imaging are advised when necessary (Taigo, 2008; Sumer, 2010). Nasolabial cyst should be differentiated from epidermoid cysts, nasopalatine duct cysts, epidermal inclusion cysts, periapical granuloma and abscess. Although, it is a soft tissue cyst, but can be associated with bony erosion in some cases (Urraca, 2015). The treatment options include surgical excision, endoscopic marsupialization and injection of sclerosing agents. The purpose of this article is to present an unusual

case of a long standing nasolabial cyst in a young boy leading to rupture and subsequent epistaxis.

Case Report

A 14-years old boy presented to Department of ENT, Nangarhar University Teaching Hospital, with active nasal bleeding from right side of nasal cavity. According to the patient, he noticed a bulge below right side of the nose above the upper lip four years back. The swelling increased gradually and associated with nasal blockage for the last one year and accompanied by intermittent nasal bleeding for the last 3 months. There was no history of trauma and no history of any significant illness in the past.



Figure 1. Pre-operative picture of the patient: A bulge is seen on right nasolabial region and a clot in right nostril.

There was marked asymmetry of the face with a blood clot in the right nostril. On anterior rhinoscopy, after cleaning the nose, a soft mass was seen in right nasal vestibule ruptured at its center extending to maxillary region at the level of nasolabial fold through a track. The bulge was also seen in gengivolabial sulcus of the same side corresponding to the mass. The mass measured 3x4 cm in size.

Computed tomography revealed a soft tissue density mass on the right nasal alar region, extending to ipsilateral nasal vestibule with no bony erosion of the maxilla.



Figure 2: Axial cut of the Pre operative CT Scan.

The patient was planned for surgical excision of the mass under general anesthesia once routine laboratory investigations turned out to be within normal ranges. A 4cm incision was given 5mm above and parallel to right gengivolabial fold. The soft cystic lesion was identified anterior to maxilla. The cyst was dissected all around and

followed with its track into the nasal vestibule. The incision line and defect of the nasal floor were closed with vicryl 3.0 suture. Anterior nasal packing placed for 24 hours.

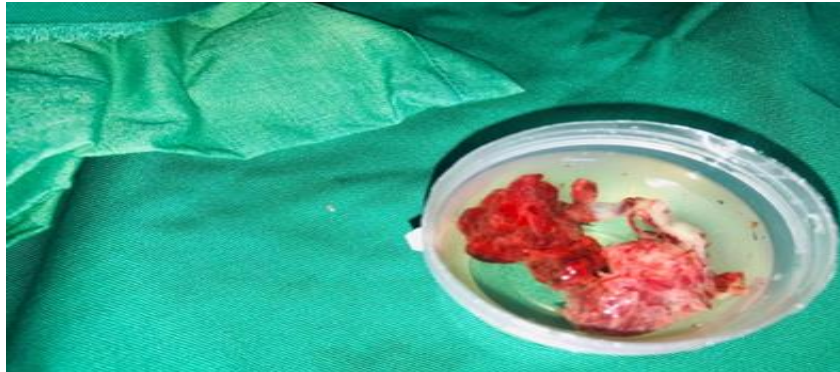


Figure 3: Excised mass along with a blood clot in a formalin-containing jar.

Histopathology showed cyst wall covered with flat epithelium with no malignant changes. No recurrence was noted after 6 months of treatment.



Figure 4: Post-operative picture of the patient

Discussion:

Nasolabial cyst is a non-odontogenic cyst located in nasal floor anterior to maxilla, comprises 0.7% of all maxillofacial cysts and 2.5% of non-odontogenic cysts (Pereira, 2002). The exact cause of nasolabial cysts is unknown but, according to a theory, the role of residual embryonic nasolacrimal duct tissues has been suggested, due to similarity of epithelial lining of the cyst and duct through pseudostratified columnar epithelium. Previously, it was thought that the cyst is a retention cyst initiating by inflammation of mucous glands (Bijou, 2021). The trauma may expedite formation of the nasolabial cyst (Sahin, 2009).

Surgical excision through sublabial excision is treatment of choice for nasolabial cysts, but endoscopic marsupialization through nasal route was also suggested by some authors. Akin (2020) reviewed 10 cases of nasolabial cyst, nine of them excised surgically and one endoscopically with no recurrence in any patient at least one year after surgery. Su (1999) reported 14 out of 15 cases of nasolabial cyst treated successfully through endoscopic approach. According to Su, the cystic cavity is transformed to an air containing cavity connecting to nasal floor after healing of the wound with no signs of mucus retention. Injection of sclerosing agents was also

tried by some authors with good results. The Neumann incision was also used by some surgeons with excellent reported results (Ordonez, 2013). This method allows better access to pyriform aperture through making the incision in free ends of the gingiva in area of interdental papillae leading to flap elevation and exposure of the region.

The patients with nasolabial cysts usually presents in their fourth or fifth decade of life with a female predominance (Zografos, 2019). Choi (2002) reported only one patient in second decade of life with male gender among eighteen patients in time period of 12 years. Our patient was also of the same gender and age group.

We could not find any case of nasolabial cyst reported with epistaxis in literature. The cause may be relatively earlier consultation and treatment as compared to our patient. For example, according to Taiga (2008), the mean time between noticing the swelling and consultation was 26.2 months while our patient was presented 4 years after developing the symptoms. The financial problems, poor tertiary care and lack of health education may have the role to delay the consultation. So health care providers are requested to refer the patient with bulging of nasolabial region to concerned specialists for earlier treatment in order to prevent the complications.

Conclusion

In light of literature review and the current case report, we conclude that the patients with nasolabial cyst presents with facial deformity and nasal blockage, but long standing cysts can be presented with nasal bleed. The cyst should be considered in differential diagnosis in patients presenting with epistaxis, especially if there is bulging of the ipsilateral nasolabial fold, even in male gender with a different age group.

References

- Abou El-Hamd, K. (1999). Nasolabial cyst: A report of eight cases and a review of the literature. *The Journal of Laryngology & Otology*, 113(8), 747-749. <https://doi.org/10.1017/S0022215100145098>
- Akın, V., Sivrice, M. E., Kumbul, Y. Ç., Yasan, H., & Okur, E. (2020). Nasolabial Cyst: 10 Years of Clinical Experience. *European Journal of Rhinology and Allergy*, 3(2), 49-52. <https://www.eurjrhinol.org/Content/files/sayilar/100/49-52.pdf>
- Bijou, W., Laababsi, R., Mennouni, M. A., Oukessou, Y., Rouadi, S., Abada, R., ... & Mahtar, M. (2021). An atypical presentation of a bilateral nasolabial cyst: a case report. *Journal of Surgical Case Reports*, 2021(3), rjab017. <https://doi.org/10.1093/jscr/rjab017>
- Choi, J. H., Cho, J. H., Kang, H. J., Chae, S. W., Lee, S. H., Hwang, S. J., & Lee, H. M. (2002). Nasolabial cyst: a retrospective analysis of 18 cases. *Ear, nose & throat journal*, 81(2), 94-96. <https://journals.sagepub.com/doi/abs/10.1177/014556130208100212>
- Marcoviceanu, M. P., Metzger, M. C., Deppe, H., Freudenberg, N., Kassem, A., Pautke, C., & Hohlweg-Majert, B. (2009). Report of rare bilateral nasolabial cysts. *Journal of Cranio-Maxillofacial Surgery*, 37(2), 83-86. <https://www.sciencedirect.com/science/article/abs/pii/S1010518208002060>
- Ordonez, A. B., Neri, L., Oliveira, I. H. L., Tepedino, M. S., Pinna, F. D. R., & Voegels, R. L. (2013). Giant nasolabial cyst treated using neumann incision: case report. *International archives of otorhinolaryngology*, 17(4), 421-423. <https://scihub.se/https://pubmed.ncbi.nlm.nih.gov/25992051/>
- Pereira Filho, V. A., Silva, A. C. D., Moraes, M. D., Moreira, R. W. F., & Villalba, H. (2002). Nasolabial cyst: case report. *Brazilian dental journal*, 13(3), 212-214.
- Sahin, C. (2009). Nasolabial cyst. *Case Reports in Medicine*, 2009, 586201-586201. <https://www.hindawi.com/journals/crim/2009/586201/>
- Su, C.Y., Chien, C.Y. and Hwang, C.-F. (1999), A New Transnasal Approach to Endoscopic Marsupialization of the Nasolabial Cyst. *The Laryngoscope*, 109: 1116-1118. <https://doi.org/10.1097/00005537-199907000-00020>
- Sumer, A. P., Celenk, P., Sumer, M., Telcioglu, N. T., & Gunhan, O. (2010). Nasolabial cyst: case report with CT and MRI findings. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and*

Endodontology, 109(2), e92-e94

<https://www.sciencedirect.com/science/article/abs/pii/S1079210409007616>

Tiago, R. S. L., Maia, M. S., do Nascimento, G. M. S., Correa, J. P., & Salgado, D. C. (2008). Nasolabial cyst: diagnostic and therapeutical aspects. *Brazilian journal of otorhinolaryngology*, 74(1), 39-43.

<https://www.sciencedirect.com/science/article/pii/S1808869415307497>

Urraca, M. P. (2015). Nasolabial Cysts: Sublabial or Neumann Incision. *Journal of Otolaryngology-ENT Research*, 3(1), 00054. DOI: 10.15406/joentr.2015.03.00054

Zografos, I., Podaropoulos, L., Malliou, E., & Tosios, K. I. (2019). Nasolabial cyst: a case report. *Oral Surgery*, 12(1), 51-56. <https://www.sciencedirect.com/science/article/pii/S1646289013003208>