

Tonsillar Necrosis in a Diabetic Patient: A Case Report

Abdoul Wahab Haidara^{1*}, Harouna Sanogo², Mohamed Saydi Ag Med Elmehdi Elansari³, Aminata Fofana⁴, Ali Dembele¹, Mariam Sangare⁵, Mahamadou Doumbia⁶, Boubacar Sanogo⁷, Djibril Samake⁸, Sidiki Dao⁴, Youssouf Sidibe⁷, Fatogoma Issa Kone⁶, Boubacary Guindo⁶, Siaka Soumaoro⁶, Samba Karim Timbo⁶, Kadiatou Singare⁶, Mohamed Amadou Keita⁶

¹ENT and Head and Neck Surgery Department, Nianankoro Fomba Hospital, Segou, Mali

²ENT and Head and Neck Surgery Department, Reference Health Center of Kalaba Coro, Kati, Mali

³ENT and Head and Neck Surgery Department, Reference Health Center of Commune VI, Bamako, Mali

⁴ENT and Head and Neck Surgery Department, Commune IV Reference Health Center, Bamako, Mali

⁵ENT and Head and Neck Surgery Department, Commune II Reference Health Center, Bamako, Mali

⁶ENT and Head and Neck Surgery Department, Gabriel Touré University Hospital, Bamako, Mali

⁷ENT and Head and Neck Surgery Department, Mother and Child University Hospital "Le Luxembourg", Bamako, Mali

⁸ENT and Head and Neck Surgery Department, Reference Health Center of Commune V, Bamako, Mali

Email: *haidarabdoul27@gmail.com

How to cite this paper: Haidara, A.W., Sanogo, H., Elansari, M.S.A.M.E., Fofana, A., Dembele, A., Sangare, M., Doumbia, M., Sanogo, B., Samake, D., Dao, S., Sidibe, Y., Kone, F.I., Guindo, B., Soumaoro, S., Timbo, S.K., Singare, K. and Keita, M.A. (2025) Tonsillar Necrosis in a Diabetic Patient: A Case Report. *International Journal of Otolaryngology and Head & Neck Surgery*, 14, 267-271.

<https://doi.org/10.4236/ijohns.2025.144029>

Received: February 22, 2025

Accepted: July 19, 2025

Published: July 22, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Introduction: Tonsillar necrosis is a rare manifestation, often associated with severe infections, vascular disorders or systemic pathologies. In diabetic patients, relative immunosuppression and microvascular disorders can promote the development of serious infectious complications. Through a case report and a review of the literature, we will study the diagnostic and therapeutic aspects of tonsillar necrosis in a diabetic setting. **Patient and Method:** This is a 40-year-old housewife, married in monogamy, residing in Bamako. She consults for sudden onset of febrile odynophagia, associated with high dyspnea, mouth breathing and reflex otalgia. The ENT examination, we note an ulceronecrotic lesion of the right tonsillar lodge taking the veil and extending to the hard palate, and to the base of the tongue. A submental adenopathy is painful to palpation, and Anterior serous rhinorrhea. We performed a necrosectomy under local anesthesia and established the treatment of tonsillitis according to the national protocol by Amoxicillin at a rate of 2 g/day for 7 days; paracetamol in perfusion at a rate of 1 g every 8 hours for 3 days. Local care with antiseptic mouthwashes and local analgesics. Maintaining adequate hydration with an adapted diet. The patient was referred to the diabetology department and put on insulin therapy for diabetes. The evolution on the seventh day was favorable. **Conclusion:** Tonsillar necrosis is a rare pathology, often associated

with severe infections, vascular disorders or underlying comorbidities. Diabetes mellitus, due to its immunosuppressive effects and microvascular complications, may promote this condition.

Keywords

Tonsillar Necrosis, Diabetes, Oropharyngeal Infection, Streptococcus Pyogenes, Antibiotic Therapy

1. Introduction

Tonsillar necrosis is a rare entity that can result from infectious, ischemic or tumoral causes [1]. Acute tonsillitis is most often caused by the usual viruses of the respiratory tract. Among the small number of tonsillitis cases caused by bacteria, only those involving group A beta-hemolytic streptococcus (StA) are of importance and are the only ones for which antibiotic treatment is indicated [2]. Complications of tonsillitis are classified into suppurative and non-suppurative complications. Suppurative complications are peritonsillar, parapharyngeal and retropharyngeal abscesses [3]. The diagnosis of tonsillar ulceration is clinically based on a careful oropharyngeal examination. Tumor origin is the most feared; it can be mainly a malignant lymphoma or a squamous cell carcinoma. Elsewhere, this ulceration may be related to infectious mononucleosis, Vincent's angina or a granulomatosis such as syphilis or tuberculosis. The diagnosis is then histological [4].

Through an observational case and a review of the literature, we will study the diagnostic and therapeutic aspects of tonsillar necrosis in a diabetic setting.

2. Patient and Method

Observation: This is a 40-year-old housewife, married in monogamy, living in Bamako. She consults for sudden onset of febrile odynophagia, associated with high dyspnea, mouth breathing and reflex otalgia.

The medical and surgical history did not reveal any defects.

On admission all these constants were normal.

The ENT examination noted an ulcero-necrotic lesion of the right tonsillar lodge taking the veil and extending to the hard palate and the base of the tongue (**Figure 1**). A submental adenopathy is painful on palpation, and there is Anterior serous rhinorrhea. No dermatological lesions were noted.

We carried out the biological assessment based on

- The NFS was normal
- fasting blood sugar was elevated to 2 g/dl
- CRP was negative
- TPHA/VDRL came back negative
- Tuberculin IDR came back negative

- HIV serology was negative



Figure 1. Tonsillar necrosis on day 1.

The result of these examinations concluded that there was tonsillar necrosis due to diabetes. We performed a necrosectomy under local anesthesia and started the treatment of tonsillitis according to the national protocol with Amoxicillin at a rate of 2 g/day for 7 days. Paracetamol by infusion at a rate of 1g every 8 hours for 3 days. The surgical specimen was sent for pathological examination, which was inconclusive (nonspecific inflammation). Glycemic control is achieved through adaptation of the insulin regimen and close monitoring. Local care with antiseptic mouthwashes and local analgesics. Maintaining adequate hydration with an adapted diet.

The patient was referred to the diabetes department and put on insulin therapy for diabetes.

The evolution on the seventh day was favorable (**Figure 2**).



Figure 2. Progression after 7 days of treatment.

3. Discussions

Patients infected with the human immunodeficiency virus (HIV) have, in more than 50% of cases, a lesion involving the ear, nose and throat (ENT) sphere, the most frequent being oropharyngeal lesions. Although some ENT lesions are suggestive of HIV infection, the diagnosis can be difficult when the ENT lesion is the first reason for consultation. This underlines the importance of knowing the ENT manifestations that should lead to serological screening for HIV infection [5].

Clinically, dysphagia is the most common symptom. It is progressive, unilateral and slightly alleviated by symptomatic treatments. A revealing cervical adenopathy is often observed. Examination of the oropharynx shows one or more ulcerations of the palatine tonsil that are rounded, atonic, yellowish gray in color surrounded by a hemorrhagic border and covered with caseous debris. These lesions can spread to the pharynx [1] [6]. Lymph node involvement is noted in 80 to 90% (level II and III 30 to 40 mm) and can rapidly progress to suppuration and fistulization [1] [7].

Diagnosis is based on clinical examination and imaging to exclude extensive cellulitis or deep abscess. Management is based on early antibiotic therapy and optimal control of diabetes [8] [9]. According to current literature recommendations, a multidisciplinary approach involving ENT, infectiology and diabetology specialties is essential to improve prognosis [10].

The outcome was favorable with clinical improvement within 7 days. Blood glucose was stabilized and no signs of secondary complications were noted. This case illustrates the need for rapid management in diabetic patients to avoid severe complications. Tonsillar necrosis, although rare, should be suspected in the presence of severe tonsillitis resistant to initial treatment, especially in patients at risk. Increased vigilance is necessary in patients with glycemic imbalance to avoid severe complications.

4. Conclusion

Tonsillar necrosis is a rare pathology, often associated with severe infections, vascular disorders or underlying comorbidities, especially in immunocompromised patients. Diabetes mellitus, due to its immunosuppressive effects and microvascular complications, can promote this condition. Emergency tonsillectomy is an effective therapeutic option in cases of extensive necrosis, allowing a rapid improvement in the patient's vital and functional prognosis.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Cherkaoui, A., Hajjij, A., Ouattassi, N., *et al.* (2010) Tuberculosis of the Palatine Tonsils. *Pan African Medical Journal*, **4**, 1-5.
- [2] Bisno, A.L., Gerber, M.A., Gwaltney, J.M., Kaplan, E.L. and Schwartz, R.H. (2002)

- Practice Guidelines for the Diagnosis and Management of Group A Streptococcal Pharyngitis. *Clinical Infectious Diseases*, **35**, 113-125. <https://doi.org/10.1086/340949>
- [3] Ghavami, S., Gombert, E., De Sandre, C. and Lambercy, K. (2021) De l'angine simple à l'abcès périamygdalien. *Revue Médicale Suisse*, **17**, 1690-1693. <https://doi.org/10.53738/revmed.2021.17.753.1690>
- [4] Fine, A.M., Nizet, V. and Mandl, K.D. (2012) Large-Scale Validation of the Centor and McIsaac Scores to Predict Group A Streptococcal Pharyngitis. *Archives of Internal Medicine*, **172**, 847-852. <https://doi.org/10.1001/archinternmed.2012.950>
- [5] Marsot-Dupuch, K., Meyohas, M.C., Schmitt, E., Prudhom de Saint-Maur, P. and Woimant, H. (2000) Pathology of the ENT Sphere during Acquired Immunodeficiency Syndrome: Contribution of Imaging. *Encycl Med Chir (Editions Scientifiques et Médicales Elsevier SAS, Paris, All Rights Reserved), Radiodiagnosis-Neuroradiology-Musculoskeletal System*, 31-675-D-10, Oto-Rhino-Laryngology, 20-956-B-10, 13 p.
- [6] Prasad, P. and Bhardwaj, M. (2012) Primary Tuberculosis of Tonsils: A Case Report. *Case Reports in Medicine*, **2012**, Article ID: 120382. <https://doi.org/10.1155/2012/120382>
- [7] Tandon, S. and Jaswal, T.S. (2001) Singh Tuberculosis of Tonsil with Unusual Presentation. *The Indian Journal of Tuberculosis*, **48**, 223-224.
- [8] Benabdellah, N., Karimi, I., Bentata, Y. and Haddiya, I. (2013) Approche de l'état podologique du patient diabétique hémodialysé chronique dans un centre hospitalier Marocain. *Pan African Medical Journal*, **16**, Article No. 13. <https://doi.org/10.11604/pamj.2013.16.13.2289>
- [9] Mahfoudhi, M. and Khaled, K. (2015) Abcès para-pharyngé survenant chez un diabétique. *Pan African Medical Journal*, **20**, Article No. 114. <https://doi.org/10.11604/pamj.2015.20.114.6130>
- [10] Darbellay, P., Uçkay, I., Dominguez, D., Mugnai, D., Filtri, L., Lew, D., *et al.* (2011) Traitement du [b]pied[/b] diabétique infecté: Une approche multidisciplinaire par excellence. *Revue Médicale Suisse*, **7**, 894-897. <https://doi.org/10.53738/revmed.2011.7.292.0894>