

CLINICAL IMAGE

Laryngitis after inhalation of liposomal amikacin

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Abstract

A 56-year-old woman with pulmonary *Mycobacterium avium* complex disease was started on inhalation liposomal amikacin. One month later, she developed hoarseness and was diagnosed with laryngitis. The laryngitis healed immediately after treatment discontinuation, and no recurrence occurred even after resuming intermittent inhalation.

KEYWORDS

amikacin liposomal inhalation suspension (ALIS), hoarseness, laryngitis, *Mycobacterium avium* complex (MAC)

1 | CASE DESCRIPTION

A 56-year-old woman had been on medication for macrolide-resistant pulmonary *Mycobacterium avium* complex disease, and she persistently had positive sputum cultures. Amikacin liposomal inhalation suspension (ALIS) was started in combination with rifampicin and ethambutol. Thereafter, the number of bacteria in the sputum smear decreased gradually, and the cough and sputum were under control. However, hoarseness appeared one month after treatment initiation. Fiberoptic laryngoscopy showed redness and swelling of both the vocal cords, indicating laryngitis (Figure 1, black arrow). ALIS therapy was discontinued, and the hoarseness improved within a few days. After

2 weeks, the treatment was resumed and administered on alternate days. There was no recurrence of hoarseness until 5 weeks after treatment resumption, at which point the laryngitis had healed (Figure 2, white arrow).

A previous study reported that dysphonia occurs in 45.7% of patients subjected to daily ALIS¹; it can improve with a temporary reduction in ALIS inhalation frequency.² However, there are no reports that discuss exactly how often inhalation can be safely resumed. In the present case, the vocal cord morphologically returned to normalcy after 7 weeks of dose reduction. Clinically, if hoarseness appears, intermittent inhalation on alternate days could permit healing while also enabling treatment continuation.

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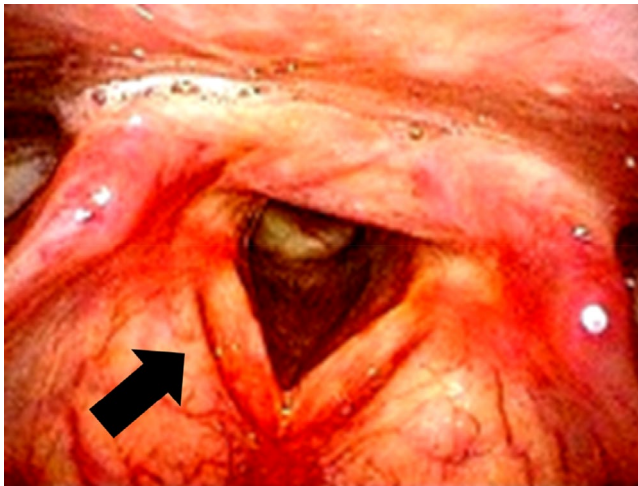


FIGURE 1 Image of fiberoptic laryngoscopy obtained at one month after the start of inhalation, showing redness and swelling of the bilateral vocal cords

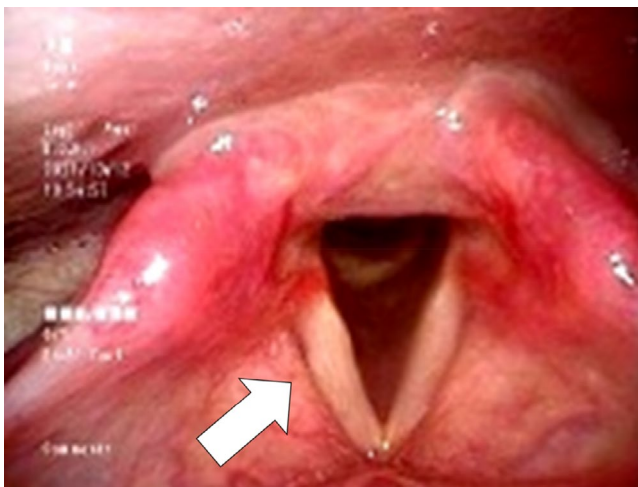


FIGURE 2 Image of fiberoptic laryngoscopy obtained at 5 weeks after of resumption (7 weeks after the temporary discontinuation), showing markedly improved of inflammation and returned to normalcy

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None.

CONFLICT OF INTEREST

The authors state that they have no conflict of interest.

AUTHOR CONTRIBUTIONS

AM, HN, MH, and NH contributed to the manuscript preparation. HN, MH, and NH contributed to the patient management. All authors read and approved the final manuscript.

ETHICAL APPROVAL

This paper was written after obtaining informed consent, and the procedures followed were in accordance with the Declaration of Helsinki.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

DATA AVAILABILITY STATEMENT

The data will not be shared with patient confidentiality.

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