CASE REPORT

Lymphoma presenting as a peritonsillar abscess

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KEYWORDS
Peritonsillar abscess; Lymphoma; Tonsillectomy

Summary
Introduction: Peritonsillar abscess is generally seen as a complication of acute tonsillitis in young subjects. It may, however, in rare cases reveal a malignant tumor of the tonsil: most often squamous cell carcinoma or, more rarely, lymphoma. We report a rare case of tonsillar lymphoma revealed by a peritonsillar abscess.

Case report: A 66-year-old woman, without history of recurrent tonsillitis, was admitted for right peritonsillar abscess with fever. She underwent incision-drainage of the abscess with 10 days’ intravenous antibiotics. As tonsillar hypertrophy persisted, tonsillectomy was performed; histology with immunohistochemical examination found tonsillar lymphoma.

Discussion/Conclusion: Possible tumoral etiology should be considered in any peritonsillar abscess occurring in an atypical subject. Acute-stage tonsillectomy enables early diagnosis.

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Introduction
Peritonsillar abscess is a deep suppurative frequently found in the cervico-facial region. It is most frequent in adolescents and young adults, and is seen as a complication of acute tonsillitis. More rarely, it may reveal a malignant tonsillar tumor: most often squamous cell carcinoma or, more rarely, lymphoma.

We report a rare case of tonsillar lymphoma revealed by a peritonsillar abscess in an elderly patient. The study is intended to alert physicians to the possibility of malignancy in case of peritonsillar abscess occurring in an atypical subject.

Case report
A 66-year-old woman, without history of recurrent tonsillitis or other notable pathology, was admitted for right odynophagia of 10 days’ evolution, with associated fever.

Oropharyngeal examination found lockjaw and arching of the right anterior pillar, with deviation and edema of the uvula. The tonsils were hypertrophic, with intracrypt ulceration of the right tonsil. All of the oropharyngeal mucosa was congestive. Cervical examination found two 3-cm superior right jugular-carotid adenopathies that were firm, mobile and painless.

Given the suspect aspect of the right tonsil, an emergency CT scan was taken and found right tonsil hypertrophy with a 30-mm gathering in the center associated with infiltration of the facing parapharyngeal fat (Fig. 1).

Puncture of the swelling found plentiful pus, confirming the diagnosis of peritonsillar abscess. Incision-drainage was

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Figure 1 Oropharyngeal CT scan, axial slice (A) and coronal slice (B): bilateral tonsillar hypertrophy, right tonsil with a 30mm gathering in the center (arrow) associated with infiltration of the facing parapharyngeal fat.

associated to 10 days’ intravenous amoxicillin-clavulanic acid antibiotherapy.

Evolution was good, with resolution of fever, lockjaw and pillar arching.

Multiple biopsies within and at the edges of the ulceration were taken to determine its nature, but proved negative. Given the persistence of the tonsillar hypertrophy and a suspicion of tumoral etiology underlying the abscess, bilateral tonsillec-tomy was performed at 10 days.

Histology with immunohistochemistry found non-Hodgkin tonsillar lymphoma (Figs. 2 and 3).

At the time of writing, the patient was undergoing chemotherapy.

Discussion

Non-Hodgkin lymphoma of the tonsils accounts for less than 1% of malignant head and neck tumors as a whole [1]. More frequent in elderly subjects, it presents as an enlarged, firm and painless tonsil, without associated lockjaw. It is only very rarely revealed by peritonsillar abscess, which is rather typical of young adults with history of iterative tonsillitis. Physical signs include medialization of the tonsil, with edema and displacement of the uvula; lockjaw and halitosis are key characteristics.

The incidence of malignant tonsillar tumor associated with peritonsillar abscess cannot be determined, as only a few cases have been reported: our own literature review retrieved only seven cases, including a single case of lymphoma, making the present case the second in the literature. The previous report [2] was of a 6-year-old child who had undergone 1 week’s antibiotherapy for a peritonsillar abscess, without showing improvement. He was treated in a single step associating incision-drainage and acute-phase tonsillectomy; as in the present case, no cleavage was found during surgery; lymphoma was diagnosed on anatomopathologic examination.

The other literature reports comprised four cases of tonsillar squamous cell carcinoma, one of acute leukemia [2–4] and one of metastasis from clear-cell carcinoma [5].

The cases reported in the literature showed no sex bias; age ranged from 6 to 58 years. Immunodepression was associated in two cases. There were no cases involving iterative tonsillitis. Clinical symptomatology was typical of that of peritonsillar abscess. Cervical adenopathies were reported in only two cases, but were also found in the present patient. Evolution ranged from 7 days to 3 months. Imaging was performed in two cases; in the others, diagnosis was founded on the macroscopic aspect and histology [4].

Holmes et al. [4] also recommended upper endoscopy with guided biopsy in case of risk factors for oropharyngeal carcinoma associated with these infections; he accounted for the association by necrosis and primary tumor cavitation with superinfection, especially in immunodepressed patients.

There is controversy as to surgical management of peritonsillar abscess by incision-drainage followed by acute versus non-acute-stage tonsillectomy. Acute-stage tonsillectomy has the advantage not only of reducing the risk of recurrence but also of possibly revealing malignancy: later

Figure 2 Sheet-like proliferation of large lymphomatous cells, raising the malpighian covering of the tonsil.
Lymphoma presenting as a peritonsillar abscess

Figure 3  A. Large centroblastic and immunoblastic macronuclear cells with a few lymphocytes. B. Positive CD 20 immunolabeling of tumor cells.

tonsillectomy delays diagnosis, putting prognosis in jeopardy.

Conclusion

Peritonsillar abscess only rarely reveals malignant tonsillar tumor, and even less frequently lymphoma. The association should be systematically investigated, especially in case of immunodepression, elderly patients or risk factors for tonsillar carcinoma. Acute-phase tonsillectomy in such cases enables diagnosis and thus timely adapted treatment.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

References