

Parapharyngeal lymphoma presenting as peritonsillar abscess: a Case Report

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ABSTRACT

Background:

Para-pharyngeal space neoplasms are very rare, and most of which are benign. Rarely, Peritonsillar abscess may manifest as malignancy. Commonly it happens as a complication of acute tonsillitis.

Case Report:

A 12 years-old boy medically free presented to our emergency department with complaints of sore throat and difficulty while swallowing for three weeks associated with sneezing and nasal discharge. The child reported a visit to an otolaryngologist two days after first presentation and was given oral amoxicillin. He took the antibiotics for 3 days without significant improvement. Child denied any history of fever, weight loss, decrease appetite and night sweating.

Upon examination the patient was looking well, hydrated and not in pain or distress. Oral examination revealed a pushed uvula to the right side, left peritonsillar swelling and mildly erythematous tonsils, a trial of incision and drainage tried without significant pus nor discharge was drained. Patient was admitted to the ward and received intravenous antibiotics, dexamethasone and was booked for peritonsillar abscess incision and drainage under general anesthesia the next day. Next day patient was sedated and intubated, Boyle-Davis mouthgag inserted and an incision done over the area of maximum bulging. biopsy was taken and sent for histopathology laboratory.

Results came as positive for lymphoma, and the patient was referred to medical oncology and chemotherapy started.

Conclusion:

Peritonsillar abscess only rarely can present as malignant tumors, and even more rarely as lymphoma. We report this case to draw the physician's attention of the possibility of rare indecent of primary Parapharyngeal lymphoma presentation..

Keywords: Head and Neck Neoplasms, Peritonsillar abscess, Burkitt Lymphoma.

INTRODUCTION

Para-pharyngeal space neoplasms accounts only for 0.5% of all head and neck neoplasms, most of which is benign. (1) Primary malignant lymphoma of PPS is very rare, almost inexistent. Such cases are described as single cases. (2)

Peritonsillar abscess commonly happens as a complication of acute tonsillitis, especially among adolescents and young adult. It is defined as a deep suppuration commonly present in the cervico-facial area. However, rarely peritonsillar abscess may

manifest a malignant tonsillar tumor: most frequently squamous cell carcinoma or, more rarely, lymphoma. (3)

We report this case to draw the physician's attention of the possibility of rare indecent of primary Parapharyngeal lymphoma presentation, in which we encountered as peritonsillar abscess.

Case Report:

A 12 years-old Saudi boy not known to have any medical illness presented to KAUH emergency

department with complaints of recurrent sore throat for 3 weeks not responding to antibiotics.

The child experienced symptoms of sore throat not associated with cough or runny nose and No fever for 3 weeks. He reported a visit to an otolaryngologist in a private hospital two days before his presentation and was given oral amoxicillin 500mg, orally twice a day. He took the antibiotic for 3 days with partial improvement but worsen over time. The sore throat was progressive in nature, in the last week the pain has become more severe and associated with sign of nasal obstruction and snoring, but no neck movement restriction. The child denied any, fever, weight loss, loss of appetite or night sweat. Review of system were unremarkable expect for difficulty in swallowing.

Upon physical examination the patient was looking well, hydrated and not in pain or distress not pale or jaundice conscious oriented to place, person and time.

Vitaly stable, temp:36.7 (axillary), BP:120/68, HR:75, RR:15, Pso2:100% on room temperature, WT: 50kg, HIT: 144cm, BMI: 24.11. Oropharyngeal examination revealed a deviated uvula to the right side, left pushed tonsils and peritonsillar swelling and mildly erythematous tonsils, posterior pharyngeal wall couldn't not be seen. Scope was done and showed inferior turbinate hypertrophy, posterior enlargement of the tonsils and bilateral mobile vocal cords. No palpable masses in the neck.

Systemic review: cardiopulmonary system unremarkable, gastrolrenal system normal no hepatosplenomegaly, Central nervous system grossly normal.

a trial of aspiration with a needle was tried without significant pus nor discharge was drained.

Investigations and hospital course:

Lab investigations showed normal complete blood count, coagulation profile, liver function tests, Urea and electrolytes were normal. Patient was admitted to the ward and received intravenous antibiotics, dexamethasone and was booked for peritonsillar abscess incision and drainage under general anesthesia the next day. Next day patient was sedated and intubated, Boyle-Davis mouth-gag inserted and an incision done over the area of maximum bulging.

Figure (1) Intraoperative image of left peritonsillar swelling

Incision revealed a yellowish cheesy mass extending laterally and posteriorly to the posterior pharyngeal wall and lateral, biopsy was taken and sent for histopathology laboratory.

Day 1 post-operatively patient improved partially with no signs of airway obstruction, MRI showed enlarged paraphernal mass with partial compression to the trachea.

Results came as tumor cells were positive for B-cell markers (CD10, CD20 and PAX-5) and negative for epithelial markers (Cytokeratin and CK5/6), Ki67 proliferation marker is positive in more than 95% of the tumor cells in keeping with Burkitt's lymphoma, and the patient was referred to medical oncology and chemotherapy started, patient was followed for 2 years after his presentation and he was doing fine with no signs of recurrence.

Non-hodgkin lymphoma of the tonsils represent less than 1% of all malignant head and neck neoplasms. (4) Because the literate review is insufficient,the incidence of peritonsillar abscess linked to malignant tonsillar neoplasm couldn't be made.(3) our literature review found only 2 cases of lymphoma presenting as peritonsillar abscess. One of which was a 6year old child who undertake a trial of antibiotic therapy, but no response was there. So management by single step associating incision-drainage and acute-phase tonsillectomy was done and send for pathology upon which lymphoma was diagnosed. (5) the second case had same presentation and management and differ in the age of the patient a 66y old women.(3)

From way back, Diffusion Wight imaging (DWI) was mainly for the discovering acute stroke. But nowadays, Along with Magnetic resonance imaging (MRI), DWI routinely used for the assessment of head and neck neoplasms. Malignant neoplasms differ from benign ones in their biological characteristics. And that's why malignant lesion would usually appear more pronounced diffusion restriction. Moreover, not all malignancies appear the same. The degree of restricted diffusion is proportional to the grade of the neoplasms. Higher restricted diffusion with higher neoplasm grade and vice versa. Due to different management approach between Squamous cell carcinoma and lymphoma,

which are the most common head and neck neoplasms respectively? It's important to differentiate them beforehand with the usage of DWI. DWI have a verity of application, it can distinguish between benign and malignant neoplasms, abscess and necrotic masses, infective and metastatic lymph nodes, and deciding the most appropriate biopsy location.(6)

We encourage future researcher to conductus researches that can distinguish these malignant neoplasms from simple infections.

Conclusion:

Peritonsillar abscess only rarely can present as malignant tumors, and even more rarely as lymphoma. It's more commonly due to complication of acute infection and the association with malignant tumors should be evaluated especially among people who don't responded to antibiotic therapy. Evaluation should be carried through incision-drainage and acute-phase tonsillectomy.

Acknowledgements:

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Figure Legends



Figure (1) Intraoperative image of left peritonsillar swelling