Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2016; 4(7E):2600-2602 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2016.v04i07.063

Original Research Article

Role of Needle Aspiration in the Management of Peritonsillar Abscess

Dr. Vinay S Bhat[1], Dr. Anupama A[2]
[1]Assistant Professor, Department of otolaryngology and Head & Neck surgery, Adichunchanagiri Institute of medical Sciences, B.G Nagara, Mandya District, Karnataka 571448, India
[2]Clinical Microbiologist, Semler Research centre, Bangalore, Karnataka 571448, India

***Corresponding author**
Dr. Vinay S Bhat
Email: drvinaybhat@gmail.com

Abstract: Peritonsillar abscess is a common condition seen in routine otolaryngology practice. Incission and drainage has been mainstay of treatment since many centuries. Recently needle aspiration of peritonsillar abscess is found to be as effective as incission and draiage. In this study we try to assess the outcome of needle aspiration as definitive treatment for peritonsillar abscess. It is a prospective study conducted between January 2015 to June 2016. Total of 50 patients with unilateral peritonsillar abscess were included in the study. All the patients underwent needle aspiration followed by parenteral antibitic administration till the cure. Needle aspiration was repeated in patients who had persistance of signs and symptoms. Age of the patients included in the study ranged from 18 to 72 years with mean age of 37.58 ±13.23 years. 45 patients (90%) had cure from the condition with first attempt of needle aspiration within mean duration of 3 ± 1.2 days. 4 patients (8%) had cure with second attempt of needle aspiration within mean duration of 5±1.3 days. one patient (2%) needed third attempt of aspiration and was cured on 7th day of admission. None of the patients had any complications. Needle aspiration is effective and safe method in management of peitonillar abscess. It is simple to perform and has minimal complications if any. it significantly reduces patient morbidity and treatment cost burden to the patient.
Keywords: Peritonsillar abscess, needle aspiration, incission and drainage

INTRODUCTION

Peritonsillar abscess, also known as quincy is a commonly encountered condition in routine otolaryngology practice. It is defined as collection of pus between capsule of the tonsil and superior constrictor muscle of the pharynx. It is considered to be the commonest of the deep neck space abscesses. Earlier peritonsillar abscess was considered as one of the complications of acute tonsillitis. Recent evidence suggests that it is secondary to infection of weber's glands lacated near the upper pole of the tonsil [1]. Multiple organisms can be responsible of development of this infection but commonest organisms are aerobic streptococci, prevotella and peptostroptococci [2].

There is considerable debate regarding management of peritonsillar abscess. Incission and drainage is the most commonly performed procedure for initial management followed by parenteral antibiotics. Another option for management of this condition is needle aspiration of pus from the abscess followed by parenteral antibiotics. Recently many studies have been conducted comparing both the procedures. Data from these studies shows that results of neeedle aspiration is comparable to incission and drainage. Needle aspiration is quicker, easy to perform and causes significantly less morbidity and has faster healing time. This study was conducted to evaluate the efficacy of needle aspiration in the treatment of peritonsillar abscess.

MATERIALS AND METHODS

This is a prospective study conducted in Department of otolaryngology at adichunchanagiri institute of medical scinces and research center from january 2015 to june 2016. Institutional ethical committe clearance was taken before the study was conducted.All the patients presenting with unilateral peritonsillar abscess were enrolled for the study. Written informed consent was taken from all the patients included in the study. All the patients underwent routine clinical examination and hematological investigations. Patients underwent ultrasound of neck for confirmation of abscess in the peritonsillar space. Detailed clinical

history was taken. Specific questions were asked regarding history of recurrent throat infections, any surgical procedure in the past and regarding similar complaints in the past. All the patients were admitted in the ward. All the patients in the study underwent needle aspiration of the abscess using 18 guage needle and 10 ml syringe. Before the procedure surface anaesthesia was achieved using 10% lidocaine spray. After the procedure aspirated pus was sent for culture and sensitivity. All the patients were immediately started on empirical intravenous antibitics covering both gram positive and negative organisms. Patients were also given intra muscular analgesics for pain management. Intravenous fluids were given to patients who had difficulty in oral consumption fluids and food. Patients were advised to rinse their mouth with antiseptic gargles three times daily.

Complete resolution of symptoms such as pain,fever, trismus, odynophagia were considered as cure and patients were dischrged with oral antibitics and analgesics. Antibiotics were changed in patients where culture and sensitivity showed resistance. Patients were then followed up after a week.

RESULTS

Total of 50 patients were included in the study. 24 of the patients were male (48%) and 26 of the patients were female (52%). 22 patients had peritonsillar abscess on right side (44%) and left side involvement was seen in 28 patients (56%). Age of the patients included in study ranged from 18 to 72 years with the mean age of 37.58 ±13.23 years . Mean duration symptoms prior to needle aspiration was 3.76 ±1.01days. All the patients included in the study complained of pain (100%). Fever was seen in 35 ptients (70%). Trismus was present in 35 patients (70%) and odynophagia was complained by 48 of the patients (96%). Out of 50 patients 45 patients (90%) were cured in mean duration of 3 ±1.2 days. 4 patients (8%) required second aspiration and were cured with in mean duration of 5±1.3 days. One patient (2%) required third sitting of aspiration on 5th day and was cured on 7th day of first aspiration. No complications were seen in any of the patients included in the study.

DISCUSSION

Peritonsillar abscess commonest of the deep neck space infections seen in otolaryngology practice with the incidence ranging from 13-30 per 100000 population [3,4]. It is most commonly unilateral and rarely can present bilaterally. Patients usually present with the chief compaliants of severe unilateral throat pain, fever, trismus, odynophagia and dysphagia. On examination sweling can be seen in the space lateral to upper pole of tonsil pushing the tonsil medially. Sometimes uvula is pushed to opposite side.

Peritonsillar abscess if not treated adaquately can lead to complications such as parapharyngeal abscess, respiratory distress and septicemia. Incission and drainage of the peritnsillar abscess is popular as definitive mode of managent since many centuries. Guy de chauliac, a french surgeon first reported incission and drainage in 1962 [5]. Till 1980 it was the commonly performed procedre for this condition. Since 1980 many surgeons have tried aspiration of peritonsillar abscess with variable success. Recently many studies have been conducted comparing incission and drainage with needle aspiration which clearly support the use of needle aspiration as a primary modality of treatment. Needle aspiration has advantage of being quick, easy to perform, easy to repeat and less painful compared to incission and drainage. It is also known to have minimal complications if any. On the other hand incission drainage procedure is difficult to perform in local anaesthesia and associated with complications such as bleeding and aspiration of pus. Inadvertant injury to surrounding structures can also occur during incisson and drinage.With aspiration as effective method now its possible to manage patients with peritonsillar abscess on out patient basis, where as incission and drainage requires admission as complications can occur after the procedure

Our study was aimed at confirming the efficay of needle aspiration in the definitive treatment of peritonsillar abscess. Comparison of needle aspiration with incission and driange was not carried out as our aim was to study needle aspiration as a primary modality of treatment. Our study confirms the efficacy of needle aspiration. All our patients were cured of the condition with needle aspiration alone. 45 patients (90%) out of 50 were cured with single sitting needle aspiration. 4 patients (8%)though required second sitting had significant resolution of symptoms after the first attempt of needle aspiration. Only in one patient we performed needle aspiration three times before he was cured. None of our patients required incission and drainage.

CONCLUSION

Our study confirms that needle aspiration is a valuable method as a primary modality in treatment of peritonsillar abscess. It is easy to perform and associated with minimal complications. With needle aspiration becoming popular now most of the patients with peritonsillar abscess can be managed on out patient basis and it significantly reduces cost burden to the patient.

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