To determine the history of previous tonsillitis in patients admitted with quinsys or parapharyngeal abscesses

Volitiditis D¹, Sheldon J², Chan HSA² and Smith WK FRCS (ORL-HNS)¹

¹Kettering General Hospital NHS Trust, UK

²Medical students, Leicester Medical School, UK.

Background: Despite an increasing population the number of tonsillectomies performed in England per head of population has reduced by 6.8% but the number of admissions for tonsillitis increased 181% from 2003-2013.¹

Objective: To determine if patients admitted with quinsy or parapharyngeal abscesses (PPA) had a sufficient history of tonsillitis that would warrant earlier tonsillectomy thereby preventing these admissions.

Method: Patients admitted to a district general hospital under ICD10 code from March 2014 to March 2017 were identified. Information regarding the admission and previous tonsillitis was obtained from reviewing the hospital notes and via a telephone interview with the patients. Patients diagnosed with peritonsillitis, retropharyngeal abscesses and those with incomplete data were excluded.

Results: Of 105 patients identified, complete data was obtained in 39 patients with a quinsy and 7 with a PPA.

This graph shows the incidence of quinsy according to age and sex.

27/39 (69%) patients with a quinsy had a history of tonsillitis with 17/39 (44%) experiencing tonsillitis in the year prior to developing a quinsy. The episodes of tonsillitis in the others had occurred between 2-20 years previously but none of the patients met the current NICE guidelines for tonsillectomy based on the frequency of recurrent tonsillitis ².

This graph shows the time interval between quinsys.

11/39 patients (28%) had a history of previous quinsy with 81% of these having their second quinsy at 12 months or less from the first. Interestingly all but one of these patients had experienced at least one bout of tonsillitis in the 12 months from their first quinsy. Only 2 patients with a history of more than one quinsy met NICE criteria for tonsillectomy prior to admission²

The majority [24/39 (62%)] of patients admitted with a quinsy required a 2 day hospital stay, 6/39 (15%) one day, 8 (21%) 3 days and one patient who subsequently developed a PPA was admitted for 5 days.

8/11 (73%) of the patients admitted with their second quinsy and another patient with one quinsy and recurrent tonsillitis had a tonsillectomy. 9/28 (32%) went on to have further tonsillitis over a minimum follow-up period of one year.

All but 1 of the 7 patients with PPA required surgery during admission with a length of stay of 1-34 days with a median of 2 days 2 patients required ITU care. Only one patient had a history of tonsillitis.

Discussion: Current NICE guidelines state that tonsillectomy should only be offered to patients after the second episode of quinsy. Our study supports the findings of Chung et al that recurrent tonsillitis is a risk factor for developing a quinsy³.

Only 2 of our patients met the current NICE guidelines for tonsillectomy prior to admission with a quinsy. 89% of patients admitted with a second quinsy had experienced tonsillitis in the proceeding year

If the NICE criteria for tonsillectomy was expanded to include an episode of tonsillitis following one episode of quinsy, this could potentially prevent a second quinsy occurring reducing the morbidity to patients as well as reducing the overall healthcare costs.

Raut and Yung’s study supported interval tonsillectomy following a quinsy since 43% of their patients experienced further attacks of tonsillitis or quinsy post discharge⁴. Our study supports this with 32% having had tonsillitis after one quinsy over a modest period of follow-up.

Conclusions: This study confirms that recurrent tonsillitis is a significant risk factor in developing a quinsy. Furthermore this study has shown for the first time that the risk of developing a second quinsy increases if there has been a history of tonsillitis in the 12 months following the first quinsy. Therefore we recommend changes to NICE guidelines so that tonsillectomy should be considered in patients having any further episodes of tonsillitis after their first quinsy. Recurrent tonsillitis however does not appear to contribute significantly to the development of PPA.

1. Millington AJ, Phillips JS Current trends in tonsillitis and tonsillectomy. *Ann R Col Surg Eng* 2014; **96**: 586-589
2. NICE Guidelines based on 2010 Guideline 117: Management of sore throat and indications for tonsillectomy 2010 Scottish Intercollegiate Guideline Network (SIGN)
3. Chung J, Lee Y, Shin “ et al. Risk factors for recurrence of peritonsillar abscess. *J Laryn Otol* 2014;**128**:1084-1088
4. Raut VV, Yung MW Peritonsillar abscess:The rationale for interval tonsillectomy. *Ear Nose Throat J* 2000; **79**:206-209