

Use of Computed Tomography in the Emergency Department for the Diagnosis of Pediatric Peritonsillar Abscess

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Introduction:

The early identification of acute peritonsillar abscesses in the pediatric population is paramount. As of the writing of this article, there is no clear guideline for CT imaging in the pediatric population. There is also the ever present concern of radiation exposure, especially in the highly sensitive tissue in the area. While identification of peritonsillar abscesses is mainly clinical, there is a role for CT imaging for diagnostic purposes as well as to determine spread of the infection in the more severe cases. This study was a retrospective case review that looked at the use of CT imaging in the diagnosis of peritonsillar abscess in the pediatric population.

Methods:

This study was a retrospective case review at one specific hospital between a 2 year span. They identified patients younger than 18 years old who presented in this time span with the diagnosis of peritonsillar abscess or symptoms concerning for PTA. They excluded anyone seen in the ED older than 18 years old. They then made a spreadsheet for the categorical variables being evaluated, which included presentation, imaging findings, mean age, and treatment outcome.

Results:

During this 2 year span, 148 charts were obtained and reviewed. Mean age of presentation was 11.8 years old. CT imaging was noted to be done at an increased rate in younger children. There were approximately 28% of the subjects who underwent CT who were found to not have a PTA, shortening their ED stay. Younger patients (mean age 11 years old) were more likely to undergo surgical intervention versus those undergoing awake needle aspiration (mean age 13.4 years old.) The most common presenting symptoms were cervical lymphadenopathy, fever, and odynophagia/dysphagia.

Discussion:

This was a poor quality study with a small sample size and a vague, poorly defined hypothesis. There was no guideline to dictate when CT imaging was appropriate and imaging was performed by physician choice with no discussion in this study as to why they chose to perform the imaging. In the author's discussion, they made assumptions as to why younger children underwent more CTs and felt it was due to poor cooperation on their parts. While this may have some merit in younger children, they made these assumptions without substantiating evidence. The generalization of this study is limited bases on its small sample size and I found it not to have any clinical practice applications.

Conclusion:

CT imaging for the diagnosis of PTA is often utilized in the ED without any standard guideline available. This study does very little to help us.
