Efficacy of amitriptyline for chronic laryngitis

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ABSTRACT

Objective: The authors studied the effectiveness of amitriptyline for the treatment of chronic laryngitis. The use of amitriptyline for chronic laryngitis has been well established as a treatment for neuropathic pain. It is quite possible that idiopathic laryngitis consists of several different disease processes. This study was designed to compare the effectiveness of amitriptyline in patients with both laryngitis and cough symptoms.

Methods: A retrospective chart review identified patients treated with amitriptyline for laryngitis in a 1-year academic ENT practice. Patients who had documented compliance with medication and a follow-up evaluation performed within three months after initiation were included. Symptoms, demographic information, and response to therapy were abstracted from the records.

Results: Sixty-six subjects: 48 women and 18 men. Blacks constituted 42%, Hispanic 27%, White 20%, Asian 6%, and other 5%. Response to treatment was judged complete in 32%, partial in 24%, and without improvement in 36%. No significant differences in response rates were seen based on gender (p=0.289), age (<60 vs. 60+) (p=0.149) or race (p=0.254).

Conclusions: We found a substantial rate of improvement with amitriptyline treatment among individuals with chronic laryngitis, with most subjects tolerating this treatment. No differences in efficacy were seen among racial, age and gender subgroups. A prospective randomized trial of this therapy appears warranted.

INTRODUCTION

Chronic laryngitis can present with a variety of symptoms including cough, hoarseness, throat clearing, foreign body sensation, throat pain, sensation of excessive phlegm, and difficulty swallowing. These symptoms result in a significantly impaired quality of life for individuals. Several putative causes for this disorder have been identified, including gastric reflux, post-nasal drainage, direct allergic effect, smoking, and other environmental causes. Despite treatments directed at these specific causes, patients fail to improve. Some clinicians have proposed a neuropathic etiology for idiopathic chronic laryngitis, and have speculated that this may occur as a post-viral complication or other neuropathic cause. Diagnosis of this condition remains one of exclusion in the absence of detectable pathology or other causes.

METHODS

A retrospective chart review identified patients treated with amitriptyline for laryngitis in an academic ENT practice. Patients who had documented compliance with medication and a follow-up evaluation performed within three months after initiation were included. Symptoms, demographic information, and response to therapy were abstracted from the records.

RESULTS

Response to treatment was judged complete in 32%, partial in 24%, and without improvement in 36%. No significant differences in response rates were seen based on gender (p=0.289), age (<60 vs. 60+) (p=0.149) or race (p=0.254).

CONCLUSIONS

• Chronic laryngitis is debilitating

• Escalating treatments do not provide relief for a significant portion of individuals

• Amitriptyline has been used to treat a chronic laryngitis based on a hypothesis that this disorder has a neuropathic etiology

• This study is not designed to suggest amitriptyline is not only effective, but also safe and well-tolerated in the low doses used to treat laryngitis

• No significant difference was seen in response based on varied racial groups, genders, or ages

• It is possible that a larger study would be able to find more significant contributions to outcome

• A more robust, double-blind placebo-controlled study is indicated to further explore this issue

REFERENCES


(5-8) The largest study to date (n=28) compared patients randomized to either amitriptyline or codeine/guaifenesin, and found the amitriptyline to be significantly more effective. To date, however, no blinded study has been conducted. This study assessed the efficacy of using amitriptyline for chronic laryngitis at our institution, and represents the largest presented collection of such patients to date.

Figure 2. Number of subjects by change from baseline

<table>
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</tbody>
</table>

Table 1. Outcome compared with race

Figure 3. Subjects who tolerated the medication final improved, categorized by symptom. No significant difference was found with alpha of 0.05

(9) Bastian R, Vaidya AM, Delicopati KG. “Sensory neuropathy cough is a common complication of postinfectious laryngitis.” The Annals of otology, rhinology, and laryngology. 2009; 118.4: 247-252


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