Angioedema of the larynx

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ABSTRACT

Twenty patients were diagnosed angioedema on their first visit to our department. Twelve were men and eight were women, and their mean age was sixty-three years. They received treatment on twenty-seven occasions in total; one patient visited our clinic three times, five patients visited us twice each. As the symptoms differed at each examination, we regard each of the 27 examinations as individual patients for simplicity.

(1) Manifestations

Manifestations are shown in Figure 1. The most common manifestation was dysphonia in the pharynx and larynx. Dysphagia and dysphonia were recognized in over eighty percent of patients. In contrast, only a few patients complained of pain or itching. A remarkable result was that forty percent of patients showed dyspnea.

(2) Cause of angioedema

Causative factors of angioedema were listed in Table 1. The cause was unknown in a majority of patients. In those for whom the cause was specified, drugs were the highest cause agent of angioedema. A notable result was that angioedema due to angiotensin-converting enzyme inhibitors (ACEIs) was associated with dyspnea, pain, and itching in more than forty percent of patients. Dyspnea was recognized in fifty-nine percent of patients. It was found that the rate of laryngeal angioedema was higher than those shown in previous reports. It is recommended that all cases of angioedema should be examined for laryngeal edema. The final notable result is that ACE-related drugs are important diagnostic agents of angioedema in Japan. In our study, four cases were caused by ACE-related drugs; ACEI in three cases, and ARB in one case. According to Byrd et al., the incidence of angioedema due to ACE-related drugs varies from 0.1 to 6 percent. Our results showed sixteen percent of angioedema cases to be caused by ACE-related drugs. These few cases in Japan, so that the percentage of angioedema attributed to ACE-related drugs increases in Japan.

INTRODUCTION

Angioedema, which has the potential to obstruct the upper airway, is common disease in the USA and Europe. About fifty percent of patients with urticaria have angioedema, as described previously (2). Furthermore, hereditary angioedema (HAE) caused by C1 inhibitor deficiency is well known to be the severest type of angioedema (3). In contrast, angioedema, especially HAE, is rare in Japan. There are only a few cases of HAE that have been identified in the country. For this reason, few reports on angioedema have been published by Japanese otolaryngologists, although angioedema has the associated risk of asphyxia. The aim of this study is to evaluate the incidence of laryngeal edema in angioedema patients. To access the edema of upper airway, we hope to indicate the importance of angioedema management to otolaryngologists in Japan.

METHODS AND MATERIALS

Clinical data for angioedema patients who visited the otolaryngology clinic of Fukushima Medical University Hospital from 1989 to 2010 were reviewed. Manifestations, regions of swelling and cause of angioedema were examined. We classified the head and neck edema into ten regions: the face, eyelid, lips, tongue, pharynx, epiglottis, arytenoid region, vocal cords, false folds and neck. All patients were examined with a digital laryngoscope. ACEI = angiotensin-converting enzyme inhibitor ARB = angiotensin type-II receptor blocker

RESULTS

Table 1 depicts the number of patients with angioedema for whom the cause was specified. The most common cause was urticaria, followed by angioedema due to ACE-related drugs. It was found that urticaria was the most common cause of angioedema in our study, which is consistent with previous reports. In contrast, urticaria has been considered to be a risk factor for angioedema in previous reports. Although angioedema has the associated risk of asphyxia, we hope to indicate the importance of angioedema management to otolaryngologists in Japan.

CONCLUSIONS

We evaluated laryngeal edema in patients with angioedema who sought initial treatment at our otolaryngology clinic. The most common Complaint was pharyngeal or laryngeal discomfort and 48% of patients complained of dyspnea. ACE-related drugs have found to be important agents of angioedema in Japan. Laryngeal edema was demonstrated in 59% of patients. It was found that the rate of laryngeal angioedema was higher than those shown in previous reports. It is recommended that all cases of angioedema should be examined for laryngeal edema.

REFERENCES


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DISCUSSION

This study presents three noteworthy results. First is the fact that the most common manifestation requiring treatment by an otolaryngologist is not facial or lip edema, but discomfort in the pharynx or larynx. In this study, patients with angioedema were only selected when they visited our clinic three times, five patients visited us twice each. As the symptoms differed at each examination, we regard each of the 27 examinations as individual patients for simplicity. A remarkable result was that forty percent of patients showed dyspnea. The second remarkable result is that laryngeal edema was present in fifty-nine percent of the angioedema patients. Zingale et al. reported the rate of laryngeal edema in angioedema ranged from twenty to thirty-five percent. Our results indicated there were more cases with laryngeal edema than cases with dyspnea. Dyspnea (angioedema 59%, dyspnea 48%). It is recommended that angioedema patients should be examined for laryngeal edema. The final notable result is that ACE-related drugs are important diagnostic agents of angioedema in Japan. In our study, four cases were caused by ACE-related drugs; ACEI in three cases, and ARB in one case. According to Byrd et al., the incidence of angioedema due to ACE-related drugs varies from 0.1 to 6 percent. Our results showed sixteen percent of angioedema cases to be caused by ACE-related drugs. These few cases in Japan, so that the percentage of angioedema attributed to ACE-related drugs increases in Japan.