



(CASE REPORT)



A case of gabapentin-induced angioedema in a 31-year-old female

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Abstract

Angioedema is a known potential side effect of gabapentin; however, not many reports of presentation exist in literature. This report is of a 31-year-old woman who presented with signs of sciatica and was started on gabapentin. When the gabapentin dosage was increased, she developed angioedema of the right side of her face, particularly pronounced in the periorbital region. Because an acute allergic reaction was suspected at first, the patient was treated with epinephrine and Benadryl. However, when the patient did not improve, angioedema was suspected. The patient was subsequently treated with steroids and gabapentin was discontinued.

Keywords: Angioedema; Gabapentin; Reaction; Allergy

1. Introduction

Angioedema is a serious condition characterized by asymmetric swelling, often involving the face, lips, and larynx. Angioedema is most often associated with angiotensin converting enzyme (ACE) inhibitors, but can be induced by other medications as well. We present the case of a 31-year-old female who developed angioedema after receiving gabapentin.

2. Case Presentation

A 31-year-old woman with a history of intravenous (IV) heroin use, Hepatitis C, and anemia presented to the hospital with two days of diffuse body pain. She describes the pain as diffuse but points primarily to her lower back. She states that the pain was unbearable and she could not walk as the weight on her legs exacerbated her lower back pain. Her mother found her on the floor of their home with complaints of not being able to walk or move her legs, which prompted her to call emergency medical services. Her last use of heroin was a day before hospital admission. She denied fever, chills, nausea, vomiting, chest pain, shortness of breath, or diarrhea when she first presented to the hospital.

Computed tomography (CT) thorax showed cavitory lesions suspicious for septic emboli. A trans-thoracic echocardiogram done the day after admission showed a multilobulated vegetation adherent to the anterior tricuspid valve leaflet measuring at least 1.2 x 0.9 centimeters. Trans-esophageal echocardiogram done two days after the previous echocardiogram confirmed findings and showed no mitral valve abnormalities.

The patient was diagnosed with sciatica given her lower back and buttock pain with shooting pain down her leg that was exacerbated by palpation of the piriformis. She was started on gabapentin 300 mg at bedtime on day 6 for sciatic pain. She stated that she had previously taken gabapentin without any side effects, although she did not recall the dosage nor the diagnosis for which she was started on the medication. The dosage was increased to 100 mg three times a day and 300 mg at bedtime on day 7. She was also started on methadone 5mg three times a day on day 6, increased to 10mg three times a day on day 7.

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On day 8, the patient developed swelling of the face and hands. The swelling was most prominent around her right periorbital area. Her airway was unaffected and she had no changes in voice or ability to speak. She was given epinephrine IV and diphenhydramine as an allergic reaction to oxacillin was suspected, which she was receiving for bacterial endocarditis. On day 9, swelling had worsened especially on the right side of the face, causing closure of the right eye. She states that she sleeps on her right side and noticed it got worse when she woke up. She had no complaints of shortness of breath, dyspnea, chest pain, nausea, vomiting, abdominal pain, fever, or chills. Furosemide 40mg IV was given. Brain natriuretic peptide (BNP) was 895. The patient was taken off of oxacillin and switched back to cefazolin. Of note, gabapentin was given the night before and a morning dose of 100 mg was given at 5am. Gabapentin was stopped and the patient was given methylprednisolone 60mg IV once. The next day, the swelling had improved substantially. She was given another dose of oral prednisone 40 mg. The swelling had almost completely subsided by the following day.

3. Discussion

Gabapentin has been reported to cause angioedema at any time during treatment (1). Curiously, this patient had taken gabapentin previously without any side effects. However, her previous dosage was unknown and was likely at a lower dose than what she was started on during this hospital stay. Gabapentin is the most likely cause of the angioedema in this patient due to the time frame in which it developed - her symptoms started the morning after her gabapentin dosage was increased. She had been on oxacillin for multiple days before the onset of symptoms, making a penicillin allergy less likely. Also of note, she had no documented penicillin allergy and she stated she had never had an adverse reaction to a penicillin. Also her symptoms improved with steroids and anti-histamines, suggesting a clinical picture of angioedema.

Although angioedema is a known side effect of gabapentin, very few case reports exist of its presentation. A case of gabapentin-induced angioedema has been presented with tongue involvement; however, no case reports of periorbital angioedema exist to our knowledge (2).

4. Conclusion

This case demonstrated a rare but serious side effect of gabapentin. In this particular case, suspicion for angioedema was almost non-existent before epinephrine treatment failed. Any additional delay in withdrawal of gabapentin or steroids could have led to airway closure. Although angioedema is not often seen, cases have been documented and there is a need for angioedema to be considered when a patient is on gabapentin.

Compliance with ethical standards

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Disclosure of conflict of interest

The above listed authors have no conflicts of interest to declare.

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Statement of informed consent

Informed consent was obtained from all individual participants included in this case report.

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