

Suspected Status Migrainosus During Flu Season

Aleksandr Isakov MD ^{2,4}, Naum Shaparin MD ^{1,2,3,4}, Jacob Hascalovici MD, PhD * ^{1,2,3,4}

¹ Multidisciplinary Pain Center, Montefiore Medical Center, Bronx, NY

² The Saul R. Korey Department of Neurology, Montefiore Medical Center, Bronx, NY

³ The Arthur S. Abramson Department of Physical Medicine and Rehabilitation, Department of Anesthesiology, Montefiore Medical Center, Bronx, NY

⁴ Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY

***Corresponding Author:** Jacob Hascalovici MD, PhD

Address: Montefiore Multidisciplinary Pain Program - 1250 Waters Place, Tower II, 8th Floor, Bronx, NY. 10461, USA

Email: jhascalo@montefiore.org

Twitter: @jhasca

Instagram: @drjacobpain

LinkedIn: <https://www.linkedin.com/in/jacob-hascalovici-7763203a/>

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Abstract

Objective: The following case report is presented to highlight the importance of maintaining a high index of suspicion for secondary causes of headache, especially during influenza season.

Case Report: A 61-year-old woman with a history of infrequent episodic migraine without aura presented to our multidisciplinary pain management center during the flu season with a 1-month history of persistent and continuous headache, suspicious for status migrainosus.

Imaging of the brain was obtained to rule out secondary causes of headache and was notable for findings consistent with acute rhinosinusitis.

Conclusion: We discuss a case of headache secondary to acute rhinosinusitis during the flu season presenting as suspected status migrainosus. Herein, we discuss the differential diagnosis of secondary headache of 1-month duration and present the treatment options for headache secondary to acute rhinosinusitis.

Case Report

A 61-year-old woman with a history of infrequent episodic migraine without aura presented to our multidisciplinary pain management center during flu season with a 1-month history of persistent and continuous headache, suspicious for status migrainosus. The patient had previously described her migraines as being unilateral occipital and temporal throbbing pain occurring on 2-3 days per month with associated photophobia and phonophobia. Previously, non-steroidal anti-inflammatories (NSAIDs) and acetaminophen were sufficient for acute migraine therapy and the patient was never placed on migraine prevention therapies. The current headache was unlike her prior migraines in that the pain was constant, bifrontal, without photophobia and phonophobia and not responding to oral pharmacotherapy for pain. She reported flu-like symptoms one week prior to the headache onset but otherwise the review of systems was negative. She was treated with intravenous NSAIDs, antiemetic and antihistamine combinations in the emergency department on several occasions with only temporary symptomatic relief. The neurological exam was normal. A non-contrast head and paranasal sinuses computed tomography scan followed by magnetic resonance imaging of the brain was obtained to rule out secondary causes of headache. The results notable for mucosal thickening involving bilateral frontal and maxillary sinuses and ethmoid air cells, consistent with pansinusitis (**Figures A-D**). The headache resolved with a course of antibiotics.

Discussion

The International Headache Society defines headache caused by acute rhinosinusitis as any headache associated with clinical and/or radiological evidence of sinus disease, which develops in temporal relation to rhinosinusitis, is exacerbated by direct pressure over the paranasal sinuses and improves after treatment of the underlying sinus disease.¹ Treatment of headache secondary to acute rhinosinusitis may include NSAIDs, anti-congestants and antibiotics in refractory cases.^{2,3} Pain with palpation of the paranasal sinuses can be a clinical feature present in both migraine and



Figure A

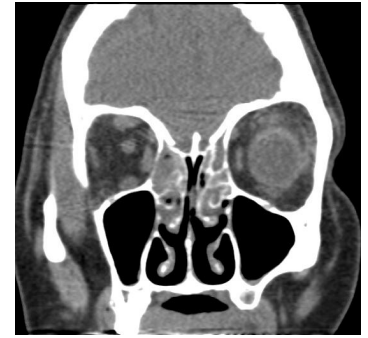


Figure B

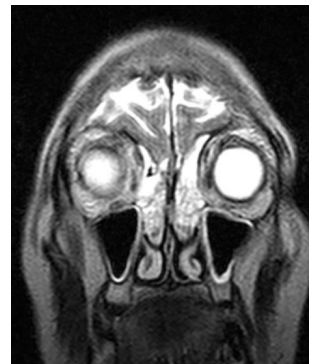


Figure C



Figure D

Figures A-D: Left to Right (A, B) Coronal non-contrasted CT of the brain with mucosal thickening involving the bilateral frontal and maxillary sinuses and ethmoid air cells, (C, D) Coronal T2 MRI with findings consistent with pansinusitis.

headache secondary to rhinosinusitis, therefore the latter is often misdiagnosed as migraine.⁴ Sinusitis is an uncommon complication of all upper respiratory infection (~0.5%) and, influenza being one of the most common causes of sinusitis.⁵ The differential diagnosis includes primary headache disorders such as new daily persistent headache, tension-type headache and status migrainosus as well as secondary etiologies such as cerebral venous sinus thrombosis, idiopathic intracranial hypertension and intracranial space occupying lesion.⁶ Interestingly, many patients without any history of migraine who are diagnosed with sinus headache are ultimately diagnosed with migraine.⁷ We observed the opposite phenomenon wherein a patient with episodic migraine developed rhinosinusitis during influenza season and was initially misdiagnosed as having status migrainosus.

Conclusion

This case illustrates the importance of maintaining a high index of suspicion for secondary causes of headache, especially during influenza season.

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Disclosures

Consent/Permissions: Patient consent was received to report the case.

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