

Is there evidence... ...for using triptan during the aura phase?

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Diagnosis and management of migraine in ten steps

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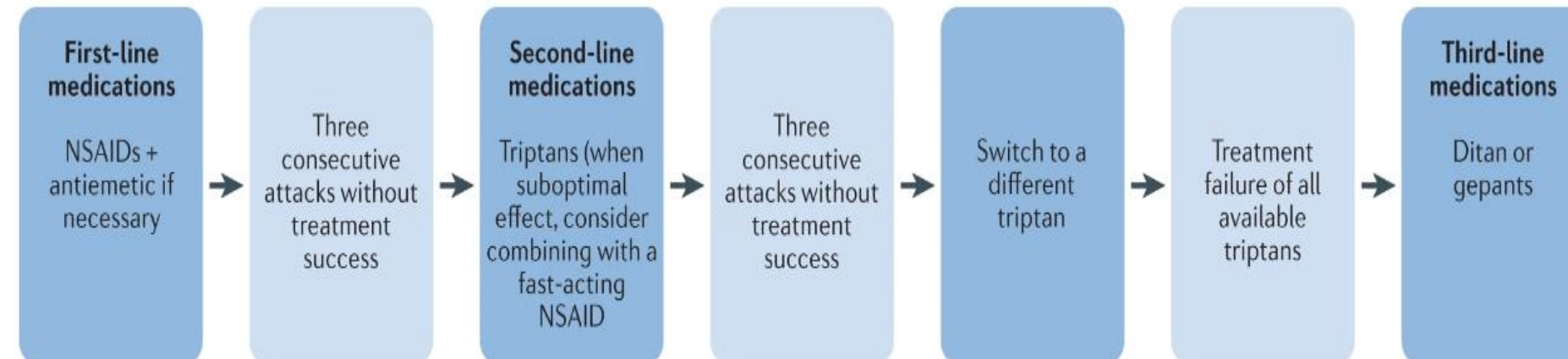
**Is there evidence...
...for using triptan during the aura phase?**

NMS Stockholm 23.11.2024

“Triptans are most effective when taken early in an attack, when the headache is still mild.
However, **no evidence supports the use of triptans during the aura phase of a migraine attack**”

Fig. 2: Stepped care across migraine attacks.

From: [Diagnosis and management of migraine in ten steps](#)



Is there evidence... ...for using triptan during the aura phase?

1. Is there any additional benefit?
2. Is it safe?



Triptan Therapy in Migraine

Author: Elizabeth Loder, M.D., M.P.H. [Author Info & Affiliations](#)

Published July 1, 2010 | N Engl J Med 2010;363:63-70 | DOI: 10.1056/NEJMct0910887 | [VOL. 363 NO. 1](#)

- Triptans are serotonin (5-hydroxytryptamine, or 5-HT) agonists with high affinity for 5-HT_{1B} and 5-HT_{1D} receptors
- “Triptans **do not prolong aura** in the roughly 30% of patients with migraine who are subject to it, but it is uncertain whether efficacy is reduced or absent when the drug is given during the aura”
- “The optimal timing of triptan use in relation to aura is in doubt. In the absence of firm evidence, **patients with aura who take triptans should experiment with the timing of use to find the timing that works for them**”

Comparative effects of drug interventions for the acute management of migraine episodes in adults: systematic review and network meta-analysis

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ABSTRACT

OBJECTIVE

To compare all licensed drug interventions as oral monotherapy for the acute treatment of migraine episodes in adults.

DESIGN

Systematic review and network meta-analysis.

DATA SOURCES

Cochrane Central Register of Controlled Trials, Medline, Embase, ClinicalTrials.gov, EU Clinical Trials Register, WHO International Clinical Trials Registry

of clinicians and people with lived experience of migraine co-designed the study and interpreted the findings.

ELIGIBILITY CRITERIA FOR SELECTING STUDIES

Double blind randomised trials of adults (≥18 years) with a diagnosis of migraine according to the International Classification of Headache Disorders.

RESULTS

137 randomised controlled trials comprising 89 445 participants allocated to one of 17 active interventions or placebo were included. All active

WHAT THIS STUDY ADDS

Considering both efficacy and tolerability, eletriptan, rizatriptan, sumatriptan, and zolmitriptan showed the best overall performance for the acute treatment of migraine

Eletriptan, rizatriptan, sumatriptan, and zolmitriptan were more efficacious than the recently marketed and more expensive drugs lasmiditan, rimegepant, and ubrogepant, which showed efficacy comparable to paracetamol and most non-steroidal anti-inflammatory drugs

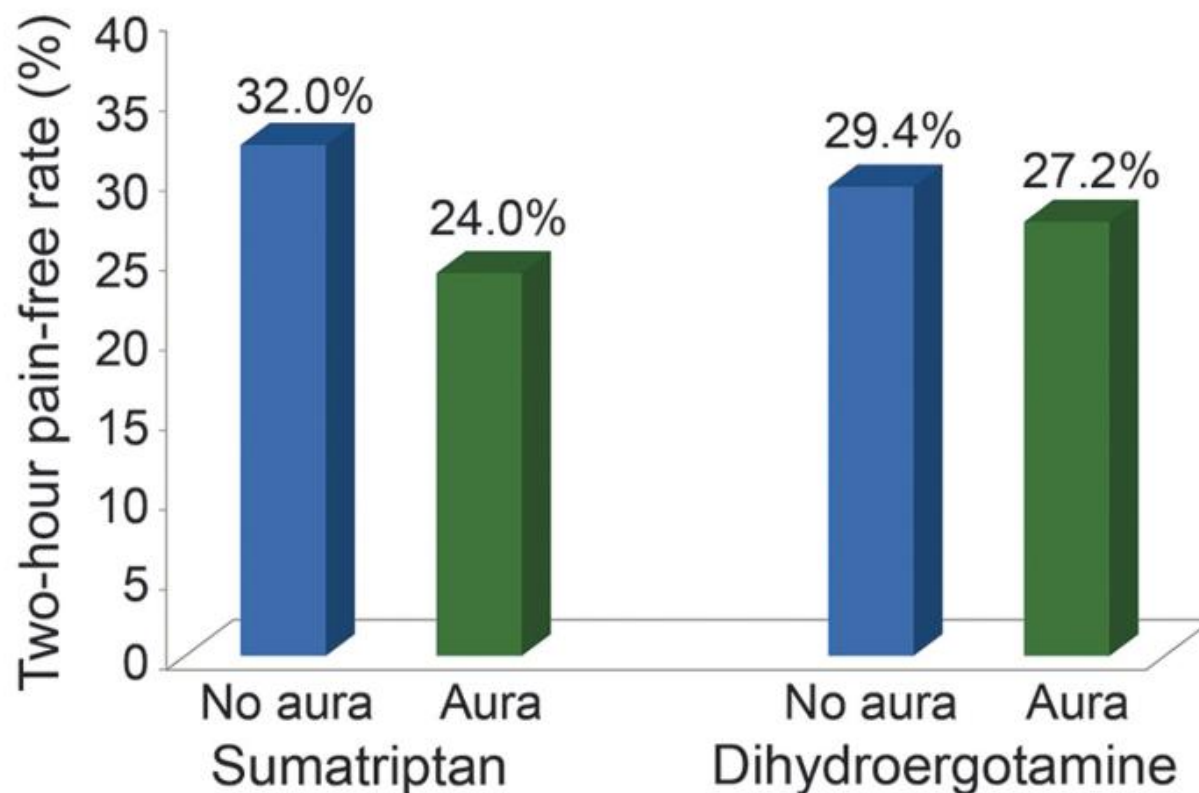
Reduced efficacy of sumatriptan in migraine with aura vs without aura

Jakob Møller Hansen, MD, PhD, Peter J. Goadsby, MD, PhD, and Andrew Charles, MD | [AUTHORS INFO & AFFILIATIONS](#)

May 5, 2015 issue • 84 (18) 1880-1885 • <https://doi.org/10.1212/WNL.0000000000001535>

“This post hoc analysis of pooled data from multiple randomized trials indicates that sumatriptan is less effective as acute therapy for migraine attacks with aura compared with attacks without aura”

Figure 3 Pain freedom 2 hours after treatment in attacks with and without aura



For sumatriptan 100 mg, there is a significantly reduced pain-free rate in patients who treated attacks with aura compared with attacks without aura. For dihydroergotamine, there was no difference between attacks with and without aura.

Subcutaneous sumatriptan during the migraine aura

D. Bates, MA, FRCP, E. Ashford, BSc, R. Dawson, MSc, F-B. M. Ensink, MD, N. E. Gilhus, MD, J. Olesen, MD, A. J. Pilgrim, DPhil, and P. Shevlin, BSc

Sumatriptan Aura Study Group | [AUTHORS INFO & AFFILIATIONS](#)

September 1994 issue • 44 (9) 1587 • <https://doi.org/10.1212/WNL.44.9.1587>

- One hundred seventy-one patients (88 receiving 6 mg sumatriptan, 83 receiving placebo) treated a single attack of migraine with typical aura at home, by self-injection
- The median duration of aura following the first injection was 25 minutes for the sumatriptan group and 30 minutes for the placebo group (NS)
- The proportion of patients who developed a moderate or severe headache within 6 hours after dose administration was
 - i. 68% among those receiving sumatriptan
 - ii. 75% among those receiving placebo
- **Sumatriptan** given during the aura **did not prolong** or alter the nature of the migraine aura and **did not prevent or significantly delay headache development**

Can Oral 311C90, a Novel 5-HT_{1D} Agonist, Prevent Migraine Headache when Taken during an Aura?

Subject Area:  [Neurology and Neuroscience](#)

[Andrew Dowson](#)

Eur Neurol (1996) 36 (Suppl. 2): 28-31.

- The purpose of the study was to determine whether 20 mg oral 311C90 (zolmitriptan) can prevent the development of migraine headache when taken during the aura phase of a migraine attack
- Forty patients (31 females, 9 males) were entered into this outpatient, double-blind, placebo-controlled, 2-period crossover trial.
- A primary response was defined as the complete absence of headache pain in the 24 hour period following administration of the first dose of study medication
- Twenty patients completed the study by treating 2 attacks, 16 of these were fully adherent to the study protocol.
 - i. Three of the 16 patients (**19%**) responded to **zolmitriptan**
 - ii. All patients developed a migraine headache after taking **placebo (0%)**
- There were no reports of zolmitriptan-related adverse effects on the aura.

No effect of eletriptan administration during the aura phase of migraine

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^cDepartment of Neurology and Neuroanatomy, University of Liège, Liège, Belgium; and ^dPfizer Inc., New York, NY, USA

	Eletriptan 80 mg (n = 36)	Placebo (n = 41)
Patients developing a moderate-to-severe headache within 6 h post-dose (%)	61	46
Median duration of aura	0.7 h	0.8 h
Median time to onset of headache	1.3 h	1.0 h
Use of second dose (eletriptan 40 mg) (%)	44	34
Response rate after second dose	54% (7/13)	53% (8/15)
Use of rescue medication (%)	28	17
Treatment was rated as acceptable at 24 h	76% (13/17)	72% (18/25)

Table 2 Efficacy measures after aura dosing^a

^aNo significant differences between groups on any efficacy measure.

Research Submission

Revisiting the Efficacy of Sumatriptan Therapy During the Aura Phase of Migraine

Sheena K. Aurora, MD; Patricia M. Barrodale, RN; Susan A. McDonald, MA; Moshe Jakubowski, PhD;
Rami Burstein, PhD

Patients were instructed to treat 5 subsequent attacks in the following order:

- treat attack 1 at 4 hours after onset of headache (late phase)
- treat attacks 2 and 3 within 1 hours of onset of pain (early phase)
- treat attacks 4 and 5 during the aura before the onset of pain (aura phase)

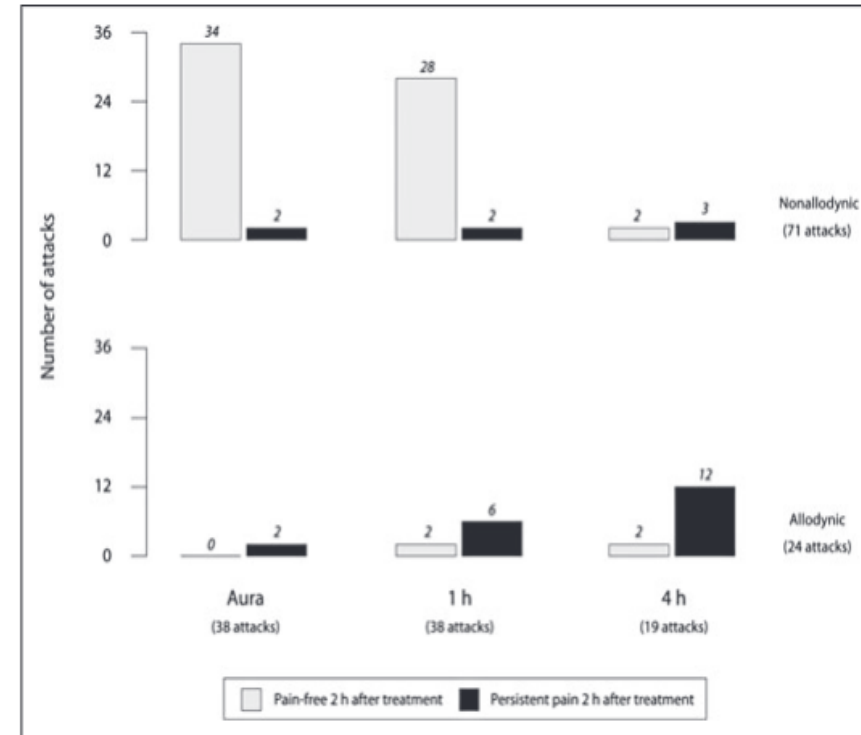


Figure.—Antimigraine effects of 100 mg sumatriptan RT as it related to the time of treatment and occurrence of cutaneous allodynia. Number of attacks is indicated above each bar (key for bar labeling as indicated in the figure). Notice that treatment during the aura phase of the attack was extremely effective in preempting the development of migraine headache. This success rate was comparable to the high efficacy of treatment given within 1 hour of onset of headache.

“Treating migraine with sumatriptan within the first 15 minutes of the aura phase proved extremely effective in preempting the onset of migraine headache”

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HEADACHE

The Journal of Head and Face Pain

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Severe Vascular Events in Migraine Patients

Priscilla Velentgas PhD, J. Alexander Cole MPH, Jingping Mo MD, PhD, Carolyn R. Sikes PhD, Alexander M. Walker MD, DrPH

First published: 18 June 2004 | <https://doi.org/10.1111/j.1526-4610.2004.04122.x> | Citations: 113

A retrospective cohort study of 130,411 migraineurs and 130,411 age-, sex-, and health plan-matched non-migraineurs



“Among the migraineur cohort, rate ratios comparing periods of current and recent exposure to triptans to periods of nonuse **were all at or below 1 for risk** of MI, stroke, serious ventricular arrhythmia, unstable angina, and TIA”

“**Use of triptans is not associated with increased risk of any ischemic events**, including myocardial infarction and stroke, or mortality”

Conclusion

There are only few (and small) studies evaluating efficacy of triptan treatment during aura

Evidence of the additional benefit of treatment during aura is scarce

On the other hand, risks are probably low