



Prochlorperazine is better than sumatriptan in the treatment of acute migraine headache

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Three part question

In [patients with acute migraines] is [prochlorperazine as effective as sumatriptan] at [resolving pain]?

Clinical scenario

A 30-year old female presents to the ED with a severe headache. She has a long history of migraine headaches without aura and this headache is consistent in quality and severity with her previous migraines. You wonder if prochlorperazine would be as effective as sumatriptan as first line therapy for acute migraine headaches?

Search strategy

Medline 1966 – 07/04 using the Ovid interface.

[(exp migraine OR exp headache) AND (exp prochlorperazine OR exp sumatriptan)]. LIMIT to human AND English.

Search outcome

The search produced seven papers and one abstract. Six of the papers failed to answer the three part question. The remaining paper and abstract are summarized in the following table.

Relevant paper(s)

Author, date and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
Donohue C, et al 1995 USA	24 ED patients with migraine headaches prochlorperazine 10mg IV + SQ saline placebo vs. sumatriptan 6mg SQ + IV saline placebo	Prospective, randomized, double-blind, noncontrolled clinical trial	Pain scores measured by visual analog scale (VAS)	prochlorperazine vs. sumatriptan	Small study size Full paper not available
			Before treatment	7.6 vs. 8.7 (NS)	
			30 min. after treatment	3.0 vs. 6.3 (p<0.05)	
			60 min. after treatment	1.3 vs. 4.7 (p<0.05)	
			% needing rescue treatment	8.3 vs. 58.3	
Di Monda V, et al 2003 Italy	112 patients 18-65 yrs old who had 1-8 migraines in previous 3 months combination suppository of indomethacine, prochlorperazine and caffeine vs sumatriptan suppository in the treatment of two consecutive migraines	Multicenter, randomized, crossover study	Pain free at two hours (combo vs. sumatriptan)	49% vs 34% (p<0.01)	Not blinded No placebo Does not directly compare sumatriptan and prochlorperazine

Comment(s)

Sumatriptan and prochlorperazine are both used as first line therapies in the emergency department for the treatment of migraine headaches. There are no large trials directly comparing sumatriptan to prochlorperazine. However the limited data that exists suggests that prochlorperazine is superior to sumatriptan in the management of acute migraine headache. There was no difference in the number or severity of adverse effects between the two therapies in either study.

Clinical bottom line

Prochlorperazine is superior to sumatriptan in the treatment of pain symptoms associated with acute migraine headaches.

References

1. Donohue C, Thomas SH, Benson N, Stone CK. Prochlorperazine versus sumatriptan for emergency department therapy of migraine headache *Ann Em Med* 1995;25:154-5
2. Di Monda V, Nicolodi M, Aloisio A, Del Bianco P, Fonzari M, Grazioli I, Uslenghi C, Vecchiet L, Sicuteri F. Efficacy of a fixed combination of indomethacin, prochlorperazine, and caffeine versus sumatriptan in acute treatment of multiple migraine attacks: a multicenter, randomized, crossover trial *Headache* 2003;43(8):835-44