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**P:** In patient presenting with acute migraine  
**I:** Does the use of valproic acid (VPA)  
**C:** Compared to standard medications  
**O:** Offer any advantages?

**Search strategy**

Pub Med: acute migraine, headache, VPA, depacon, intravenous valproate sodium, abortive agent

**Background information**

Mechanism: Unclear. VPA inc GABA levels in brain (inhibits central nociceptive neurotransmission) and reduces firing rates of serotonergic cells

**Relevant papers**

Authors	Study Type	n	VPA dose	Compared	Outcome
Mathew et al 2000	Prospective	61	300mg rapidly	none	56% pts with reduction in pain, nausea, and disability
Norton et al 2000	Case report	2	1g over 1 hr x 2	none	Resolved HA after multiple failed therapies
Edwards et al 2001	Open label, randomized	40	500mg over 15-30 min	IM Reglan and DHE	Similar relief in both groups; inc recurrence in VPA grp
Schwartz et al 2002	Prospective	10	15mg/kg 30 min then 5mg/kg q8h	none	60% pts with total or near total resolution
Tanen et al 2003	RCT, double blind	40	500mg over 2 min	IV Compazine	No significant reduction in pain or nausea; 75% in VPA grp required rescue meds
Reiter et al 2005	Retrospective chart review	31	1g over 20 min	none	78% of visits had pain relief

**Conclusions:**

Possible use as rescue agent in ED after failed standard measures.

Pros:

Nonsedating  
Low occurrence of AE and interactions  
No addiction potential

Cons:

Teratogenic  
Headache recurrence  
?Need for maintenance rx

## References

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