Aim The STOP! study investigated low-dose methoxyflurane analgesia in the treatment of moderate-to-severe acute trauma pain (pain score of 4–7 on Numeric Rating Scale [NRS]) in 300 patients in UK Emergency Departments. We present a post hoc subgroup analysis of the proportion of responders, and pain relief beyond 20 min after the start of treatment, in patients with severe pain (NRS=7) at baseline.

Method Patients aged ≥12 years were randomised 1:1 to receive methoxyflurane (up to 6 mL) or placebo (normal saline), self-administered via a Penthrox® inhaler. Rescue medication (paracetamol/opioids) was available immediately upon request. Visual analogue scale (VAS) pain intensity was assessed using the PainlogTM VAS at 5, 10, 15, 20 and 30 min, then every 30 min until discharge.

Results The severe pain subgroup included 62 methoxyflurane-treated patients and 71 placebo-treated patients. The proportion of responders (patients with ≥30% improvement from baseline in VAS pain) was significantly higher for methoxyflurane than placebo at all timepoints (p≤0.0283). Mean decreases in VAS pain intensity of −35.9, −41.6, −45.4 and 45.9 mm (from a baseline mean of 71.2 mm) were observed with methoxyflurane at 20 (n=50), 30 (n=44), 60 (n=19) and 90 min (n=10). Mean decreases of −19.6, −22.0, −32.3 and −34.5 mm (from a baseline mean of 68.3 mm) were observed with placebo at 20 (n=54), 30 (n=40), 60 (n=8) and 90 min (n=2).

Conclusion The reduction in pain intensity with low-dose methoxyflurane analgesia is maintained for the duration of use in patients with severe trauma pain.

REFERENCES

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Conflict of interest Frank Coffey was paid travel and subsistence expenses by MDI for one investigator’s meeting. Mark Lomax is an employee of Mundipharma Research Limited. There were no other competing interests.
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