


# Hypnotic and antinociceptive contribution of magnesium sulphate during balanced total intravenous anaesthesia in total thyroidectomy

## A randomised double-blind clinical trial

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European Journal of Anaesthesiology 42(10):p 948-950, October 2025. | DOI: 10.1097/EJA.0000000000002216

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Eur J Anaesthesiol 2025; 42:948–950

### SHORT SCIENTIFIC REPORT

#### Hypnotic and antinociceptive contribution of magnesium sulphate during balanced total intravenous anaesthesia in total thyroidectomy

*A randomised double-blind clinical trial*

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Received 8 January 2025 Accepted 6 May 2025

Editor,

electroencephalogram and propofol consumption during total thyroidectomy (TT). In addition, the antinociceptive effect of MS was studied through the response entropy (RE), and haemodynamic variations such as heart rate (HR) and mean arterial pressure (MAP) during the induction of propofol-remifentanyl GA and at the time of surgical incision. Approved by the Ethics Review Board (study number 2021/190) on 2 July 2021 and registered before patient enrolment under the EudraCT-number 2021-002824-19 on 27 July 2021, it followed Helsinki Declaration guidelines and Consolidated Standards of Reporting Trials (CONSORT) standards. Patients provided informed consent before participation.

Adult patients scheduled for elective TT were screened and randomised in a 1:1 ratio into two groups: Group MS (50 mg kg<sup>-1</sup> MS 10%) or Group CO (0.9% NaCl). The number of ml administered for both MS and placebo corresponded to half of the ideal body weight. The ideal body weight was computed in men as 50 + [0.91 × (height in centimetres – 152.4)] and in women as 45.5 + [0.91 × (height in centimetres – 152.4)]. Key exclusion criteria included patient refusal, ASA status IV, severe cardiac