Doctor

PEARLS Practical Evidence About Real Life Situations

Caffeine effective as an analgesic adjuvant

Clinical question

How effective is caffeine as an analgesic adjuvant for acute pain in adults?

Bottom line

Adding caffeine (at a dose equivalent to a mug of coffee, ie, about 100mg) to a standard dose of common analgesics, such as paracetamol or ibuprofen, increased the number of people with acute pain who experience a good level of pain relief (at least 50% of the maximum) by 5 to 10% (NNT* 15). The most common conditions studied were postoperative dental pain, postpartum pain, menstrual period pain and headache. One serious adverse event was reported with caffeine but was considered unrelated to any study medication.

*NNT = number needed to treat to benefit 1 individual.

Caveat

Most comparisons individually demonstrated numerical superiority with caffeine but not statistical superiority.

Context

Caffeine is commonly used as a component in analgesics available from pharmacies without a prescription in the belief that it enhances analgesic efficacy.

Cochrane Systematic Review

Derry CJ et al. Caffeine as an analgesic adjuvant for acute pain in adults. Cochrane Reviews, 2012, Issue 3. Article No. CD009281. DOI: 10.1002/14651858.CD009281.pub2.

This review contains 19 studies involving 7238 participants.

PEARLS No. 362, July 2012, written by Brian R McAvoy

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