Abstract

WHAT IS KNOWN AND OBJECTIVE: Based on in vitro assays and select animal models, buprenorphine is commonly called a 'partial agonist'. An implication is that it should produce less analgesic effect in humans than so-called 'full agonists' such as morphine or fentanyl. However, buprenorphine has a multimechanistic pharmacology, and thus partial agonism at a specific receptor is not particularly relevant to its overall analgesic action. We review published clinical trials that directly compared the magnitude of buprenorphine's analgesic effect to analgesics commonly considered full agonists.

COMMENT: Due to different signal transduction pathways, a drug can be a full agonist on one endpoint and a partial agonist on another. Therefore, we limited the present review to buprenorphine's analgesic effect.

WHAT IS NEW AND CONCLUSION: Twenty-four controlled clinical trials were identified, plus a case report and dose-response curve. Based on complete or comparable pain relief, in buprenorphine had full clinical analgesic efficacy in 25 of the 26 studies.

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KEYWORDS: buprenorphine; clinical data; efficacy; full agonist; partial agonist

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