

Anesthesiology Rounds
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Opioid Dependence and Tolerance: Important Clinical Issues?
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Objectives:

- To distinguish the concepts of physical dependence, psychological dependence (addiction) and tolerance in relation to opioids;
- To clarify the diagnostic criteria of a psychological dependence on opioids and understand its etiology;
- To become familiar with the scientific literature and trends of thought concerning the prevalence of iatrogenic opioid addiction problems and assess the benefits and risks of this form of treatment;
- To briefly review the physiopathological mechanisms involved in the phenomenon of tolerance to opioids and compare the data derived from animal and clinical studies;
- To discuss treatment strategies for preventing (or avoiding) the phenomenon of tolerance.

Answer the following questions (only one right answer)

1. Which of the following statements about opioid dependence is false?
 - a) A rapid reduction in the dosage of opioids administered to a patient who uses them regularly can trigger withdrawal symptoms.
 - b) A problem of psychological dependence (addiction) can be suspected in any patient with opioid tolerance.
 - c) A history of abusing alcohol or other substance is a risk factor for psychological dependence on opioids (addiction).
 - d) A family history of illicit substance abuse or addiction is not a formal contraindication for the prescription of opioids for analgesic purposes.
2. Which of the following statements about a psychological dependence (addiction) on opioids when used for therapeutic purposes is false?
 - a) Development of an addiction problem is influenced by genetic and psychosocial factors.
 - b) Most patients who take opioids regularly to relieve chronic pain do not develop addiction problems (psychological dependence).
 - c) Inadequate pain relief can lead to behaviour resembling that of a drug addict in need of a fix.
 - d) Physical symptoms of withdrawal are a poor indicator of the existence of a problem of psychological dependence on opioids (addiction).

3. Which of the following statements about the use of opioids for medical and nonmedical purposes is true?

- a) The use of opioids for medical purposes has increased in the United States.
- b) The use of opioids for nonmedical purposes has remained stable over the past 10 years.
- c) People who use opioids for nonmedical purposes generally began using them following exposure to these substances for therapeutic purposes.
- d) None of the above.

4. Which of the following statements about the phenomenon of tolerance is true?

- a) Tolerance to the undesirable effects of opioids such as nausea and drowsiness is a rare occurrence.
- b) Most patients who take opioids regularly develop a tolerance to the analgesic effect of opioids.
- c) Cases of hyperalgesia following the administration of high doses of opioids to humans have been described.
- d) An increase in opioid dosages is often secondary to the development of a tolerance problem in cancer patients.

5. Which of the following statements about the phenomenon of tolerance is false?

- a) There are similarities at the neurobiological level between neuropathic pain and the opioid tolerance/hyperalgesia problem described with animals.
- b) NMDA receptors could be involved in the phenomenon of tolerance.
- c) In a clinical setting, most patients suffering from chronic pain and taking opioids regularly eventually need repeated increases in their opioid dosages due to a problem of tolerance.
- d) In animals, administering low doses of μ receptor antagonists (eg, naltrexone) can prevent the development of a tolerance.

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