

Editorial

Acute post-surgical pain. The need for its correct treatment

Dolor agudo postoperatorio. La necesidad de su correcto tratamiento

Pain is a symptom that a person or patient expresses as something unpleasant, sometimes so much that it causes enormous suffering that is very difficult to live with. Most of the time, the pain symptom is related with an injury or disease. However, pain as a symptom expressed by a patient is the result of an "elaborate and complex" process unique to each person, variable in time and that can increase or decrease for different reasons, such as state of mind, physical activity or even due to other previously lived experiences.¹ This can all help us to understand the difficulty involved in the treatment of chronic and acute pain.

If this is transferred to acute postoperative pain, it all seems simpler, since we are facing a symptom that accompanies a known process, which is expected to a certain extent, directly related to a tissue injury, limited in time and which can be treated with an analgesic-based treatment available to most hospitals or centres where the process is undertaken.

But despite these premises, acute postoperative pain is still a pending task in most developed countries, where medicine has advanced considerably in the last 30 years.

This conclusion is the result of several studies carried out in various European countries, where the prevalence of postoperative pain is still high, too high.²⁻⁴

The causes attributed to its high prevalence are several, but the most important ones stem from:

1. Limited importance to the pain symptom in the postoperative period and to its repercussion.
2. Low objectivity of the intensity of pain and the type of pain felt by the patient during hospital admittance.
3. Incorrect use of analgesic or co-adjuvant drugs.
4. Poor knowledge of regional analgesia techniques or other alternative analgesic techniques.

If we focus on the first and perhaps most important assumption to understand the severity of incorrect pain treatment, there are several alterations that the patient may experience if the pain intensity is high. These alterations will have a major influence on the intervened patient's correct functional recovery. Logically, the more intense the surgical handling, the greater the need for the patient to receive

intense and effective pain treatment, given that this can influence more in postoperative morbidity as the systemic response to the surgical aggression will be greater. Said responses are as follows: a) activation of the sympathetic nervous system; b) increase in neuro-endocrine response to surgical stress; and c) inflammatory immunological changes.

These could cause adverse responses in different organs, the most relevant being increases in blood pressure and heart rate, decrease in gastrointestinal motility, decrease in residual functional capacity and vital capacity and increase in stress hormones, basically glucose.⁵

Its pathophysiology is complex, but we should be aware that postoperative pain is generated through 2 mechanisms^{6,7}:

- Direct mechanisms: through sectioning of nerve endings at different structure points affected by surgical manipulation
- Indirect mechanisms: through the liberation of algogen substances able to activate or sensitise the receptors (nociceptors) in charge of processing nociceptive sensation (pain sensation)

From these different mechanisms a series of nociceptive impulses are originated that, on reaching the central nervous system, trigger a whole cascade reaction that affects several organs and systems (respiratory, cardiocirculatory, digestive, and endocrine-metabolic), which defines the organism's reaction to surgical activity.

Therefore, postoperative pain basically appears as a consequence of nociceptive stimulation resulting from surgical activity on different organs and tissues, although in the postoperative period other sources of pain can exist (vesical or intestinal distension, muscular spasms, nervous lesions secondary to tractions during the operation or diverse medical diseases) that add to the postoperative pain proper, which could hinder its treatment.

The second point to keep in mind and which is mandatory is the assessment of the intensity of pain during the postoperative period. If the pain is not made "visible," it cannot be treated and for this, there are methods that should be used so that this symptom can be observed as

one more postoperative constant.⁴ This parameter which seems obvious is not always applied and, surely, is the first quality control index when assessing the intensity of postoperative pain. If we do not know whether it hurts, "what should we do?"

With regards to possible treatments to alleviate the pain in the postoperative period, the first premise should be to use those available with highly effective results in the process presented by the patient,^{8,9} maintaining a good safety profile.

For this, the guidelines or recommendations drawn up should consider both the type of process (surgical activity) as well as the patient's environment (control measures and related disease).

Lastly, the importance of good pain monitoring in abdominal surgery should be pointed out, where quick functional recovery is the main objective.

This is why matching analgesic drugs with the exact doses and fixed guidelines including releases if needed, and above all, knowledge of the virtues of combined techniques in surgery with a high impact on pain, is not only recommendable but necessary for the benefit of the postoperative patient.^{10,11}

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