CHRONIC PAIN – CAN WE PREVENT IT?

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CAN WE PREVENT IT?

NO!
DO I HAVE ANYTHING TO DISCLOSE?

NO
CHRONIC PAIN – CAN WE PREVENT IT?

What is it?

Who is at risk?

How do we deal with it?

How are we doing?
WHAT IS IT?
PAIN

“an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage”

CHRONIC PAIN

IASP

“pain that has persisted beyond the normal tissue healing time (usually taken to be 3 months)”

Practice Guidelines of the American Society of Anesthesiologists for Chronic Pain Management

“persistent or episodic pain of a duration or intensity that adversely affects the function or well being of the patient, attributable to any non malignant etiology”


CHRONIC PAIN

AMERICAN COLLEGE OF RHEUMATOLOGY

Chronic widespread pain (CWP)

all of the following are present for at least 3 months:

- pain in the left side of the body
- pain in the right side of the body
- pain above the waist
- pain below the waist
- additionally, axial skeletal pain must be present

* Some researchers and clinicians consider the cut-off point to differentiate chronic from acute pain is arbitrary

PREVALENCE OF CHRONIC PAIN

Prevalence estimates of CP differ greatly from one study to another

Estimates reported from 13 studies included in a systematic review vary widely from 10.1% to 55.2%

Severe CP prevalence figures showed little variation in the study populations, ranging from 8% in children to 11% in adults

PREVALENCE OF CHRONIC PAIN

In adults

back pain (47.8%)

headache (45.2%)

joint pain (41.7%)

The majority (68%) of primary care patients with persistent pain reported pain in at least two anatomical sites

In children

headache (78%)

muscular (73%)

toothache (45%)


WHO IS AT RISK?
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Who is at risk for chronic pain?

Who is at risk for postoperative chronic pain?
WHO IS AT RISK FOR CHRONIC PAIN?

*Increasing age*

*Female sex*

*Low socioeconomic status*

*Parents with chronic abdominal pain*

*Cancer*
WHO IS AT RISK FOR CHRONIC POSTOP PAIN?

Preexisting chronic pain

Thoracotomy

Hernia

Pyloromyotomy

Amputation

Multiple surgeries

THORACOTOMY

Prevalence of chronic pain after thoracotomy is significant

- 57% at 7-12 months
- 36% at 4-5 years
- 21% at 6-7 years

Overall prevalence of chronic pain

- after thoracotomy was 45%
- after VATS was 41%

Decrease in prevalence of chronic pain with increasing age


S. Reuben, L. Yalavarthy. Preventing the development of chronic pain after thoracic surgery
J Cardiothorac Vasc Anesth, 22 (2008), pp. 890–903
INGUINAL HERNIORRHAPHY

The risk of chronic post-herniorrhaphy pain is about 12%
The risk of chronic postoperative pain is probably less after laparoscopic repair
Intensity of early postoperative pain predicts chronic pain
Women may be at higher risk of developing chronic pain
Younger patients have more pain complaints
Pain-related sexual dysfunction may be an important complication of groin hernia repair
Nerve damage may be the most important pathogenic factor for chronic pain, but cutaneous sensory abnormalities do not correlate well with chronic pain


PYLOROMYOTOMY

Presence of pyloric stenosis in infancy and factors involved in its perioperative care represent risk factors for the development of chronic abdominal pain in children.

Infants diagnosed with pyloric stenosis had a 4-fold greater risk of reporting chronic abdominal pain several years later compared with controls.

Early life events have long been considered risk factors for the development of chronic abdominal pain.

Gastric suctioning might be a risk factor for development of abdominal pain (?).

Study did not allow for multiple perioperative factors.

LIMB AMPUTATION

Acute phantom limb pain intensity was the best predictor of chronic phantom limb pain

at 6 months

at 1 year

Pre-amputation pain was the best predictor of chronic phantom limb pain at 2 years

Acute residual limb pain was the best predictor of chronic residual limb pain


HOW DO WE DEAL WITH IT?
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*Multimodal Approach*

*Regional Anesthesia*

*Ketamine*

*Alpha-agonists*
REGIONAL ANESTHESIA

Noted to be effective in treating acute postoperative pain in patients with peripheral vascular disease.

Less evidence supporting the use of pre-emptive analgesia to minimize the risk of chronic pain after amputation for critical ischemia of peripheral vascular disease.

KETAMINE

Low dose ketamine may play a role in improving postoperative pain management
  thoracic surgery
  spine surgery
  hip surgery

Ketamine had a morphine-sparing effect after THA, even when morphine
was combined with multimodal systemic analgesia. It also facilitated rehabilitation
at 1 mo and decreased postoperative chronic pain up to 6 mo after surgery

Remerand F et al. The Early and Delayed Analgesic Effects of Ketamine After Total Hip Arthroplasty: A
ALPHA-2 AGONISTS

Even less data for clonidine and dexmedetomidine with respect to prevention of chronic pain in adults or children.
HOW ARE WE DOING?