Supplemental Digital Content 2

Data Collection Questionnaires, Variables, and Definitions

Variables recorded on enrollment

- Diagnosis leading to surgery
- Description of surgical procedure
- Type of surgery: scheduled or emergency
- Sex
- Age in years
- Place of birth (Spanish autonomous community)
- Date of surgery
- Employment status
- Education in years of formal schooling

Variables recorded in the preoperative assessment visit with anesthesiologist

- Weight and height
- Alcohol intake: positive if >24 g/d (>3 glasses of wine, or >3 beers or ≥2 glasses of hard liquor)
- Smoking:
  - No
  - Current
  - Exsmoker (>3 months since last smoke)
- Chronic obstructive pulmonary disease: answer “yes” or “no” to the question “Has any physician told you that you have a chronic respiratory disease?”
- Heart disease declared by the patient, stable or unstable
- Hypertension: answer “yes” if the patient reports this diagnosis or is on an antihypertensive drug
- Peripheral circulatory disease declared by the patient or recorded in the chart
- Neurologic disease declared by the patient or recorded in the chart
- Chronic kidney failure with or without dialysis
- Liver disease declared by the patient, recorded in the chart, or observed (previous jaundice, hepatomegaly or ascites)
• Diabetes mellitus: treated with dietary measures, with oral antidiabetic therapy alone, insulin alone, or an oral antidiabetic agent plus insulin

• Cancer: Karnofsky score >50% or ≤50%

• Immunosuppression declared by patient (treatment) or disease recorded in chart

• American Society of Anesthesiologists physical status classification (1-4)

Preoperative pain assessment

• Drugs used for reasons other than pain
  o Benzodiazepines
  o Anticonvulsants: ongoing treatment or only preoperative
  o Antidepressants
  o Corticosteroids
  o Street drugs (cannabis, cocaine, heroine, etc.): If cannabis is being used for therapeutic purposes, record “no” or if ≤2 cigarettes/d are smoked

• Presence of pain at the site of the intervention or other parts of the body during the 24 h prior to surgery, with intensity expressed on a verbal numerical rating scale (VNRS) (0 = no pain, 10 = the worst imaginable pain to 10) (Values > 3 were considered positive in the bivariable and multivariable analyses)

• Use of analgesics or other agents for pain: paracetamol, nonsteroidal antiinflammatory drugs, metamizole, low-dose opioids, strong opioids, antidepressants, anticonvulsants

• Previous experience of intense postoperative pain

• Family history of chronic postoperative pain: grandparents, parents, siblings, children

• Short Form Health Survey-12 (SF-12), for quality of life (version 2; time frame, 4 weeks) (Spanish version)

• Hospital Anxiety and Depression Scale (Spanish version). The 14 items are scored on a 4-point Likert scale. Seven items measuring anxiety and seven measuring depression over the last week provide a total score of between 0 and 21 for each subscale. The cut-off point for anxiety or depression is 8

Intraoperative variables

• Surgical incision
  o Direct inguinal hernia repair:
- Anterior inguinal repair, Liechtenstein mesh hernioplasty
- Anterior preperitoneal repair, Nyhus or Stoppa technique
- Repair with plugs (Rutkow/Rutkow-Robbins/Gilbert)
  - Femoral hernia repair:
    - Open repair
    - Repair with plugs (Ruklow/Rutkow-Robbins/Gilbert)
    - Meshless repair with suture anchoring (McVay technique)
- Abdominal hysterectomy:
  - Pfannenstiel incision
  - Medial, infraumbilical, or infra-supraumbilical laparotomy
- Vaginal hysterectomy, with or without plasty repair
- Thoracotomy:
  - Unilateral or bilateral
  - Muscle-sparing or not
  - Rib-sparing
  - With resection and/or fracture of a rib
  - With resection and/or fracture of more than one rib
  - Anterior, cartilage-sparing
  - Anterior, with resection of cartilage
  - Anterior, with sternotomy (clamshell incision)
  - Axillary
  - Posterolateral
- Length of incision (except abdominal hysterectomy)
- Nerve-sparing (only in inguinal hernia repair)
- Type of anesthesia (general, including combined with regional anesthesia, or spinal, epidural, plexus nerve block, local)
- Drains
- Opioid doses (fentanyl, remifentanil, alfentanil, morphine)
- Corticosteroids
- Ondansetron
- Ketamine
- Type of spinal anesthesia: intradural, epidural, combined
- Level of sensory blockade
• Spinal opioid doses (morphine, fentanyl, methadone)
• Type of local anesthetic injected spinally: bupivacaine, mepivacaine, lidocaine, ropivacaine, levobupivacaine, prilocaine
• Results of spinal anesthesia: good, moderate, poor
• Blood loss, in milliliters
• Duration of surgery in minutes (from skin incision to skin closure)
• Destination on discharge from the surgical area: home (major ambulatory surgery), hospital ward (via recovery room), critical care unit, exitus

Postoperative variables
• Pain 24 h after surgery (VNRS)
• Postoperative length of stay (number of days from the intervention day to discharge)
• Analgesics (oral or parenteral): paracetamol, nonsteroidal antiinflammatory drugs, metamizole, opioids, tramadol, ketamine, neuroleptics, gabapentinoids
• Infusion and infiltration techniques to manage postoperative pain: epidural or paravertebral infusion, wound infusion, peripheral nerve block
• Surgical wound complications during hospitalization (abscess, fistula, dehiscence, seroma, hematoma)
• Reoperation, using a different incision

Variables recorded at the follow-up visit between 3.5 and 4.5 months
• Date of visit
• Anatomical site of pain
• Brief Pain Inventory (BPI-Spanish version) (Values > 3 on a scale of 0 to 10 were considered positive indications of interference caused by pain)
• Neuropathic Pain questionnaire (version 4, Douleur Neuropathique 4 [DN4]) (Spanish version) (cut-off point of 4 out of 10)
• SF-12 questionnaire (version 2, time frame of 4 weeks (Spanish version)
• Analgesic treatments used: paracetamol, nonsteroidal antiinflammatory drug, metamizole, weak opioids, strong opioids, paracetamol-tramadol combination, anticonvulsants, antidepressants, topical analgesic, nerve block, other
Questionnaire for telephone interviews (between 1 and 1.5 months, 2.5 and 3.5 months, at 12 months and at 24 months)

Note the number of days since the operation before the interview.

Ask the patient:

- Do you have (or continue to have) pain related to the operation?
  
  If yes, ask the following questions
  
  - Have you had any problems with the incision?
  - Have you had radiotherapy or chemotherapy?
  - Have you had to have another operation for any reason, an operation different from the one you had when you joined this study?
  
- Is the pain you have now like the pain you had after the operation?
  
- Is the pain continuous or does it come and go?
  
- If the pain is intermittent, how long does it last? Seconds? Minutes? Hours? Days?
  
- How bad is the pain on a scale of 0 (meaning no pain at all) to 10 (the worst pain you can imagine)?
  
- What do you take for your pain?
  
  Allow the patient to express the medication names freely, by active principles or brand names. Classify the replies into the following categories:
  
  - Paracetamol
  - Nonsteroidal antiinflammatory drugs
  - Metamizole
  - Weak opioids
  - Strong opioids
  - Paracetamol and tramadol in combination
  - Anticonvulsant
  - Antidepressant
  - Topical treatment
  - Nerve block
  - Other
  
- Would you say the treatment you’re using is effective in relieving your pain? (Not at all? A bit? Somewhat? Pretty well? Very well?)
  
- Are you still employed or working on your own?
If yes, ask:
  • Have you returned to work yet?

Results of the telephone call:
  • Exitus
  • The patient could not be reached.
  • The patient was reached but did not adequately complete the interview.
  • The patient was reached and successfully interviewed.
References


