Characteristics of Chronic Post-Surgical Pain after hernia repair: data from the GENDOLCAT study

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Background and Aim

Inguinal hernia repair (IHR) is associated with Chronic Post-Surgical Pain (CPSP). We analyzed CPSP characteristics in the first 2 years after IHR.

Materials and methods

Prospective multicenter cohort study (GENDOLCAT¹) in 23 hospitals (2009-10) in patients aged over 18 years undergoing elective IHR. Patients with pain were identified by telephone questionnaire 4 month after surgery and referred to a hospital for diagnosis (pain history and physical exhaustive examination) and confirmation of CPSP. They were telephoned again at 12 and 24 month to determine the incidence of CPSP, intensity on a numerical rating scale (NRS) and verbal categorical scale (VCS), pain location, characteristics (with the Douleur Neuropathique questionnaire (DN4)); interference with daily living, physical and mental health (Short Form Health Survey-12 v2 [SF-12]), analgesics used, and return to work. Data were expressed as percentages or means (SD).

Results

We included 1761 patients (mean age, 53.8 ±14.5 years). The incidences of CPSP are show in Table 1.

Pain was in the groin in 66.9% and in the scar in 51.2%. At 4 month, 38.7% had neuropathic pain with the following features: Table 2

CPSP interfered with activities (18%), work (15.6%), walking (15%) and mood (10.2%). The mean physical summary SF-12 scores of patients with CPSP were 44.5 ± 9.8 before surgery and 44.7 ± 9.5 at 4 month; their pre- and postoperative (4 month) mental summary scores were 53.9 ± 9.8 and 52.7 ± 9.1, respectively. Table 3

Table 2. Neuropathique Pain (DN4).

Characteristics	%
Burning	27.4
Painful sensation of cold	6.5
Electric shocks	29.2
Tingling	35.7
Pins and needles	47.0
Numbness	47.6
Itching	26.2
Hypoesthesia to touch	45.8
Hypoesthesia to prick	32.7
Brushing	13.7

DN4 (Douleur Neuropathique questionnaire)

Table 1. Postoperative Pain.

	4 month	1 year	2 years
CPSP [%]	13.6	6.2	4.1
NRS Score	3.9 ± 2.0	4 ± 2.1	4.2 ± 2
VCS [%]			
• Mild	53.50	48.1	48.
• Moderate	37.0	37.00	37.2
• Intense/excruciating	9.6	16.1	16.9

CPSP (Chronic Postsurgical Pain); NRS (Numerical Rating Scale); VCS (Verbal Categorical Scale)

Table 3. Postoperative Pain characteristics and treatments.

	1º year	2º year
Pain		
Intermittent [%]	81.1	88.7
Constant [%]	18.9	11.3
Don´t return to work [%]	1.6	3.8
Taking analgesic [%]		
• Non steroidal antiinflammatory drugs	12.6	19.7
• Acetaminophen	14.6	15.5
• Opioids	1.0	2.8

Conclusions

CPSP is common after IHR. The incidence of neuropathic pain in this prospective study was minor than other studies. Interference with activities of daily living was also high, and some were still not working after 2 year. Surprisingly few patients took analgesics.

Reference

Montes A, Roca G, Sabaté S, Lao JI, Navarro A, Cantillo J, Canet J. Genetic and clinical factors associated with chronic postsurgical pain after hernia repair, hysterectomy, and thoracotomy: a two-year multicenter cohort study. Anesthesiology. 2015(122); 1123-41.