Hernia (2023) 27:3–4
https://doi.org/10.1007/s10029-023-02751-w

EDITORIAL

Pain following hernia repair: awareness is crucial

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Published online: 3 February 2023

A patient with a groin hernia visits a surgeon as he worries about the inguinal discomfort or pain. The surgeon confirms the presence of a hernia and performs surgery. But what if a patient complains of even more pain after the operation? Surgeons tend to state that the operation was a technical success. They will also communicate that chronic postoperative inguinal pain (CPIP) is a complex issue. Subsequent treatment, if required, is then often transferred to a pain specialist (mostly an anaesthesiologist). One could argue that this is not the optimal way of managing CPIP. Why doesn't the abdominal wall specialist remain in the lead?

Nowadays, we acknowledge a possible causal relationship between pain and our surgical interventions. CPIP after hernia repair is not an uncommon issue and therefore in the present issue of HERNIA, various studies are presented that are all related to (groin and abdominal wall) pain. In our own center of expertise we have ample feedback from the sometimes invalidating experiences of patients with CPIP. Needless to say, the long term presence of CPIP has profound psychological effects on our patients. Miller et al. attracts attention to these matters in the current HERNIA issue. The relationship between CPIP and psychological disorders may seem evident. However, is here a chicken-egg situation at hand? Was it the pain that causes these psychological disorders, or it is vice versa? A holistic approach to CPIP is probably justified.

Awareness on CPIP already starts before surgery in the outpatient department. A number of patient- and surgery-related risk factors for developing CPIP are identified [1]. The potential of ordinary surgical complications including hematomas and wound infection as risk factors for future CPIP were studied by Olsson et al. using the Swedish Hernia Register. Indeed, the majority of complications can be easily avoided by careful anatomical dissection and knowledge of pitfalls. Yildrim et al. showed that avoiding mesh fixation with tackers during a TEP was associated with a reduced level of pain up to six months postoperatively. Both studies that are reported in the present HERNIA issue provide ample learning moments for us hernia surgeons.

Evaluation of pain using different pain scores is important to assess the efficacy of any treatment for CPIP. However, retrospective study designs are inherently subject to bias. Zwaans et al. show in the current HERNIA issue that one in every seven patients remembers their pain incorrectly (recall bias). This finding emphasizes the need for a standard prospective pain score assessment in our hernia patients. Apart from quantifying pain, there is also a lack of uniformity in diagnosing CPIP, and even more so, in treatment strategies. Level of evidence regarding various pain treatment modalities is often limited as reported by the HerniaSurge guidelines [1] and its upcoming update. In their Letter to the Editor in the present HERNIA issue, Santilli points out that misdiagnoses or unjustified repair of occult asymptomatic hernias result in considerable variability in postoperative pain rates. Proper history taking, physical examination and appropriate imaging should enable the surgeon to diagnose a symptomatic inguinal hernia. However, inguinal pain may also be due to concomitant causes such as adductor tendinopathy or pubalgia. Additional imaging can help to differentiate but should be interpreted with caution. The differential diagnosis of abdominal wall or groin pain is quite diverse and encompasses more than just hernias. For instance, some patients may suffer from an intriguing pain entity termed Anterior Cutaneous Nerve Entrapment Syndrome (ACNES). When ACNES is present in the lower abdominal region, differentiating from groin pathology can be challenging. In the present issue of HERNIA, van Hoek et al. report on a large group of children having ACNES. Interestingly, results of simple tests during a physical examination may raise suspicion on the diagnosis ACNES.

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A recently formed international collaboration in the field of CPIP has been working on (implementation of) an international treatment algorithm that was presented at the European Hernia Society congress in Manchester in October 2022. The current HERNIA issue includes a narrative review from this working group describing evidence and practical suggestions for the non-surgical treatment of CPIP. High level evidence remains scarce. However, there is consensus that non-surgical interventions should be explored first before surgical options (including neurectomy and/or (partial) mesh removal) for pain relief are considered [1–3].

The widespread introduction of preperitoneal mesh repairs has stimulated surgeons to study the option of minimally invasive mesh removal. Slooter et al. report on laparoscopic mesh removal for nociceptive CPIP after preperitoneal inguinal hernia repairs. Results are promising and may stimulate other hernia surgeons to adopt this treatment option. A similar message is conveyed by van Rest et al. who investigated factors predicting outcomes of (partial) mesh removal in populations with pain after inguinal hernia and pelvic organ prolapse repair. Their model may aid us in understanding the pathophysiology of mesh-related pain.

Concerns regarding possible mesh-specific systemic effects of various implants also occupy the minds of hernia surgeons (and their patients). Complaints include generalized myalgia, arthralgia, chronic fatigue, fevers, swelling and other vague symptoms suggesting the presence of a systemic auto-immune/inflammatory response (ASIA syndrome; Autoimmune/Autoinflammatory Syndrome Induced by Adjuvants). As these complaints are non-specific and often unknown to hernia surgeons, most patients receive the message that 'it can't be due to the surgery'. Robust data on the incidence of auto-immune diseases after polypropylene mesh implantation are currently lacking but rates are estimated at 2–3% [4]. Solid evidence of a (causal) relation between mesh implantation and ASIA is not available. A previously published systematic review on ASIA after polypropylene implantation for hernia surgery found no evidence for a suggested association [5]. However, since the number of patients with systemic complaints (and ditto lawsuits) are increasing, high quality research on this subject is desirable.

Pain following hernia repair is undesirable. However, it is a given fact that CPIP may occur occasionally. There is a serious need for more high level evidence regarding diagnosis and treatment of CPIP. Future collaborations and prospective data registries as well as the present special HERNIA pain issue may aid in seriously considering this stubborn relationship. We sincerely hope that old adagium of us hernia surgeons "…*pain after hernia is always temporary*…" is history.

Data availability Not applicable.

Conflict of interest All other authors declare that they have no confict of interest.

Ethical approval The present editorial did not require permission from a medical ethics committee.

Human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent No patients were involved in the editorial.

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