

Round Table Discussion VI: Update in Chronic Pain Management

Current minimally invasive surgery and chronic postsurgical pain

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Chronic pain is the most common symptom for which patients seek medical care and surgery is the cause of chronic pain for 22.5% of these patients [1]. “Chronic post-surgical pain” (CPSP) is defined as pain persisting at least 3 months after surgery [1].

CPSP can occur following various operations, ranging from simple (herniorrhaphy, caesarean section or dental extraction) to complicated surgeries (thoracotomy, radical mastectomy or hysterectomy) [2].

The amount of injury to the tissues or nerves and the degree of inflammation differs by operation type and procedure for the same surgery. Since there is less tissue trauma in minimally invasive surgery, less chronic pain is expected than in open procedures. However, results have not always been positive.

For instance, there is a reduced incidence of moderate to severe CPSP with laparoscopic cholecystectomy (8.8%) than with open cholecystectomy (28%). Minimally invasive surgery is also recommended for orthopedic surgery to limit tissue damage and nerve injury [3]. Unfortunately, arthroscopic surgeries can also lead to CPSP due to injury to the nerves.

In the case of thoracotomy, many factors are related to CPSP. These include the surgical approach [video-assisted thoracoscopic surgery (VATS) vs open thoracotomy], the type of incision for open procedures (posterolateral vs. muscle sparing vs. sternotomy vs. transverse sternothoracotomy), rib resection or retraction, the extent of intercostal nerve preservation, and the method of rib approximation after the procedure. However, VATS does not reduce the incidence of CPSP, despite there being some reduction in the incidence of acute postoperative pain compared to open thoracotomy [3].

Despite there being insufficient evidence to recommend a definite surgical technique to eliminate the possibility of CPSP, surgeons can minimize the risk of CPSP by choosing a minimally invasive surgical technique, employing careful dissection to avoid injury to nerves, avoiding extensive surgery whenever possible, and/or minimizing the duration of surgery if possible [3].

References

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