ABSTRACT NO. 22

SEROMA IN VENTRAL INCISIONAL HERNIORRHAPHY: INCIDENCE, PREDICTORS AND OUTCOME

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Objective: Factors leading to a higher risk of seroma following ventral incisional herniorrhaphy (VIH) are poorly understood. We sought to study the incidence, predictors and outcome of seroma post VIH.

Methods: Between February 2004 and November 2006, patients were prospectively randomized in four VA hospitals to undergo laparoscopic or open ventral herniorrhaphy. Patients who developed postoperative seroma within 8 weeks from surgery were compared to those who did not. Univariate and multivariate analyses were performed to identify whether patient co-morbidities (age, body mass index, race, ethnicity, ASA classification, smoking status, diabetes mellitus, anticoagulant use, steroid use), hernia characteristics (number of prior abdominal incisions, size of defect, duration of hernia, reducibility of hernia), and/or procedure characteristics (operating room temperature, type of surgical repair, VA hospital, training level of assisting resident, use of drainage catheters, amount of blood loss) predict the occurrence of seroma.

Results: Out of 145 patients who underwent VIH, 24 developed seroma (17%). Patients who underwent open hernia repair had a higher risk of seroma than those who underwent laparoscopic repair (24.7 vs. 8.3%, $p=0.013$). Patients with seroma had hernias that were never spontaneously reducible (0 vs. 21%, respectively; $p= 0.015$) and had history of more abdominal incisions prior to repair (mean 2.4 vs. 1.8; $p= 0.037$). In multivariate logistic analyses, open surgical technique predicted the occurrence of seroma [OR: 4.5 (1.5-13.4)], as well as the specific VA hospital where the procedure was performed. Spontaneous resolution occurred in 71% of the seromas, while 29% required one or more aspirations. Infection rate was 57% among drained seromas, as compared to 18% in spontaneously resolving seromas ($p= 0.134$).

Conclusions: Open surgical technique, hernia characteristics and the medical center rather than patient co-morbidities predict the formation of postoperative seroma in VIH. Infection rate among seromas is high when drainage is attempted.