Laparoscopic surgery and port-site metastases: routine measurements to reduce the risk

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Summary

More and more malignancies are identified by laparoscopy. Concerns have been risen about the safety of these procedures, especially after the publications on trocar metastases. General laparoscopic techniques should include safety measures in order to reduce the risk of implantation metastasis.

Key words: Laparoscopy; Port-site metastases; Risk reduction; Surgical technique.

Short communication

The laparoscopic approach has gained widespread popularity in the treatment and staging of gynecological diseases [1-7]. In many cases it has often replaced the open abdominal incision. Concerns have risen regarding the safety of intra-abdominal malignancies, especially with the reports of metastases to a laparoscopic port-site [2-7].

These reports give the impression that wound metastases occur more often after laparoscopy then after laparotomy. Whether this is true or not remains controversial. The impact of port-site metastasis on patient outcome has to be investigated in prospective randomized clinical trials. For instance, it could well be that port-site metastases are just a reflection of the highly aggressive nature of the tumor and that there is no difference in outcome between the laparotomy or laparoscopy approach. However, general laparoscopic techniques should include safety measures in order to reduce the risk of implantation metastasis (Table 1) [1-7].

Laparoscopic surgeons have to be aware of trocar site metastases and their therapeutic implications. With a careful surgical technique the risk of implantation metastases can be reduced (< 1.5%) in patients with gynecological cancers. All patients undergoing laparoscopic surgery for malignancies should have careful follow-up with special attention to the port sites [2, 5, 7]. Further basic and clinical research is necessary to identify additional risk factors and to understand the pathophysiology of the selective tumor cell implantation, since tumor dissemination after laparoscopic surgery can not be explained simply by mechanical spillage.

Table 1.

Prevention measurements in general laparoscopy:
– resect lesions/cysts in toto;
– use a specimen retrieval bag;
– use multi purpose instruments;
– limit tissue handling;
– suture trocars if necessary to avoid dislodgement;
– lavage the peritoneal cavity with 0.9% saline;
– deflate the gas slowly;
– irrigate all port-site wounds with povidone-iodine;
– close the abdominal wound in layers.

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Revised manuscript accepted for publication December 10, 2002