

Port site metastases after surgically treated cervical cancer

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ABSTRACT

Laparoscopic surgery has been widely implemented in the field of surgical oncology due to the numerous benefits such as rapid recovery and low level of traumatism at the level of the abdominal wall. Therefore, oncological patients will be referred to the oncology services and will be submitted to adjuvant therapies after a shorter period of time. However, in certain cases it has been stipulated that the laparoscopic approach might be associated with higher rates of adverse events such as port site metastases especially in cases presenting massive contamination such as peritoneal carcinomatosis from ovarian cancer. The aim of the current paper is to analyze whether in cases with cervical cancer there is a higher risk of port site metastases after laparoscopic approach.

Keywords: cervical cancer, laparoscopy, port site metastases, recurrent disease, survival

INTRODUCTION

Laparoscopic surgery has gained significant popularity in the last decades due its widely recognized advantages such as lower degree of abdominal wall traumatism, lower degree of postoperative pain, more rapid mobilization of the patient, lower need of analgetic drugs, shorter interval of postoperative ileus, lower risk of postoperative thrombotic complications. Therefore, patients benefiting from a minimally invasive surgical approach will benefit from a faster discharge, a faster social and occupational reintegration [1-3]. Once these benefits have been widely demonstrated and recognized, attention was focused on implementing this minimally invasive approach in the field of oncological patients, a particular subcategory of patients who seem to necessitate most an early recovery and a minimal impact on their immunity in order to bene-

fit faster from an adequate adjuvant oncological treatment [4-6].

In this respect, the minimally invasive approach became nowadays the option of choice in gastrointestinal surgery, the most important benefits being reported in colorectal cancer [7-8]. In time, attention was focused on implementing this method in gynecologic oncology [9]; however, a significant problem which should be taken in consideration in such cases is related to the risk of developing port site metastases, the method being strongly debated especially in cases in which a massive peritoneal contamination is to be expected such as in advanced stage ovarian cancer [10].

PORT SITE METASTASES IN CERVICAL CANCER

When it comes to laparoscopically treated cervical cancer, the risk of developing port site metastases

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is significantly lower, only isolated cases being reported so far. In the meantime these metastases are more frequently seen in association with other distant metastases and might be the sign of systemic contamination [10]. The development of an isolated port site metastasis after laparoscopic surgery for cervical cancer is usually related to a microscopical contamination of the port site during surgery; in cases in which port site metastases are associated with the presence of other distant metastases the hypothesis of systemic, hematogenous spread is more credible and therefore the overall prognostic is poorer. An even rarely event is represented by the development of isolated port site metastases late after surgery and in the absence of other distant metastases; in this situation, there are few incriminated theories such as hematogenous spread, the chimney effect, direct tumoral implantation and increased levels of interleukin 8 and vascular endothelial growth factor [11].

THERAPEUTIC STRATEGIES IN PORT SITE METASTASES AFTER LAPAROSCOPICALLY TREATED CERVICAL CANCER

Whenever a suspect mass is encountered at the level of a port site in a patient with previous history of laparoscopically treated cervical cancer, a fine needle aspiration is mandatory in order to have a positive diagnostic of metastatic disease. Once the positive diagnostic is established, the therapeutic strategy will be established accordingly to the previous administrated treatment and to the extent of the disease. Therefore, cases in which isolated port site metastases are encountered, surgery might be taken in consideration. Another therapeutic option might be represented by local irradiation. In the meantime, cases presenting port site metastases in association with other distant metastases are rather candidates for systemic chemotherapy [12-14].

PORT SITE METASTASES AFTER LAPAROSCOPICALLY TREATED RECURRENCES OF CERVICAL CANCER

Interestingly, port site metastases have been reported not only after initial surgery of cervical cancer but also after laparoscopic treatment of recurrent disease. The mechanism of development of such lesions is similar to the one reported in the setting of surgery for the primary lesion and therefore so are the most efficient strategies for prevention. An interesting such case has been reported by Ota et al. in 2013; a 50 year old patient with previous history of

radical hysterectomy with bilateral adnexectomy followed by radiation therapy for stage IIA squamous cell cervical cancer was diagnosed at the five year follow up with an isolated splenic metastasis. Therefore, she was submitted to a laparoscopic hand assisted splenectomy followed by systemic chemotherapy and radiation therapy. However, twelve months later the patient was diagnosed with a tumoral mass at the level at which the hand assisted device had been placed. At that moment, no other metastatic lesions were encountered so the lesion was excised and the histopathological studies confirmed the metastatic origin of the disease. Unfortunately, four months later the patient developed systemic disease consisting of gastric, colonic and abdominal wall recurrences and she was submitted to systemic palliative treatment but she died of disease seven months later [15].

PROGNOSTIC FACTORS IN PATIENTS DIAGNOSED WITH PORT SITE METASTASES AFTER SURGICALLY TREATED CERVICAL

When it comes to the most important prognostic factors in cases diagnosed with port site metastases after laparoscopically treated cervical cancer, it seems that the time to recurrence, the histopathological subtype and the number of metastases (isolated versus disseminated lesions) significantly influence the long term outcomes; therefore, patients diagnosed with isolated lesions, after a longer period of time from the initial surgery and having an well differentiated tumor will have a better outcome; however, we should not omit the fact that in such cases the overall prognosis is poor, survival rates ranging between one month and one and a half – two years [13,14].

CONCLUSIONS

Port site metastases after laparoscopically treated cervical cancer represent a rare event; the development of such lesions is usually associated with poor outcomes, being most frequent the sign of a disseminated malignancy. However, in certain cases in which isolated port site metastases occur, surgery might be taken in consideration with curative intent. Even though, the overall prognosis remains poor, the overall survival ranging from a few months to one and a half – two years.

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