Neoplasms in the trocar site and peritoneal papillary serous cystadenocarcinoma

In the previous issue of this journal (Volume 51, Number 3, pp. 463–464), Wang and colleagues [1] published a very interesting research letter entitled “Peritoneal papillary serous cystadenocarcinoma at a previous laparoscopic trocar site”. They concluded that the patient in their study had a grade III, stage IV peritoneal papillary serous adenocarcinoma, and that this may be correlated with the fact that she had previously undergone a laparoscopic surgery for ovarian endometriosis. In brief, this isolated serous carcinoma was found in the left lower abdominal quadrant area of this 38-year-old woman (G0P0), who had a history of laparoscopic cystectomy 3 years previously for a left ovarian chocolate cyst. At that time, the patient was treated with complete excision of the tumor, which was located on the abdominal muscular layer. This patient also underwent a relatively staging surgery, including pelvic and para-aortic lymph node dissection, infracolic omentectomy, excision of the endometriotic foci, right and left ovarian biopsies, and peritoneal washing [1]. Although the description of the final pathology was not clear, it appeared to be an isolated lesion within the abdominal wall. Subsequently, the patient received six cycles of carboplatin and paclitaxel with more than 2 years disease-free survival.

This research letter provided at least three important issues: (1) safety and feasibility of laparoscopic surgery in the management of ovarian tumors; (2) the correlation between endometriosis and ovarian cancer; and (3) the diagnosis of primary peritoneal serous carcinoma.

First, the authors highlighted the fact that the surgical technique used during a laparoscopic surgery may cause wound implantation [1]. In fact, laparoscopic surgery has grown in popularity and might be considered one of the standards or options in the management of many kinds of diseases, including ectopic pregnancy [2], endometriosis [3], and other gynecological diseases [4]. Many procedures should be used for laparoscopic surgeries or other surgeries, including a delicate surgical technical [5], complete excision together with removal of the intact tumor avoiding spillage [6], and a protective procedure to prevent wound contamination from resected tumor-laden specimens that involves the use of a cellophane bag, which was initially designed to prevent the leakage of bile or gallstones into the peritoneal cavity [7]. All are not only applicable for malignant or complex tumors [8,9] but may also be used for benign tumors, such as mature teratoma [10], because some of them caused a catastrophic situation [11]. In this research letter, it is not clear whether the patient received laparoscopic cystectomy for her chocolate cyst using an endobag to remove the excised specimen [1].

Second, it is clear that endometriosis is a risk factor for epithelial ovarian cancers, especially contributing to the clear-cell and endometrioid histotypes [9]. However, the relation between other histotypes, for example, high- or low-grade serous types, and endometriosis is still uncertain. A recent paper by Pearce and colleagues [12] reported a relation between endometriosis and low-grade serous invasive ovarian cancer. Their findings suggest a relation between endometriosis and the entire type I ovarian cancer group, based on the following findings: (1) most endometrioid and clear-cell ovarian cancers are derived from endometriosis; and (2) low-grade serous ovarian cancers may develop through papillary tubal hyperplasia, sloughing and implantation of tubal epithelium on the ovarian surface or peritoneum, and progression to atypical endosalpingiosis and eventually low-grade serous adenocarcinoma [10]. Taken together, type I invasive ovarian cancers can be classified as a type of pelvic contamination disorder secondary to sloughing of müllerian cells from the fallopian tubes [10]. The authors reported that in their case, a laparoscopic operation was performed to remove a benign ovarian endometrioma [1], which indirectly hints that this isolated serious carcinoma might be correlated with the previous endometrioma. By definition, only the presence of atypical endometriosis can be regarded as a precursor lesion of clear- or endometrioid-cell ovarian cancers [13]; therefore, more detailed information, such as any endometriosis or evidence of malignant transformation found in the excised tumor or its surrounding tissue in this high-grade serous carcinoma, would have been particularly helpful [1].

Third, the diagnosis of primary peritoneal serous carcinoma can be discussed. In our previous experience [14], we also reported a very similar case of a solitary peritoneal metastasis from a poorly differentiated adenocarcinoma of unknown origin in a 38-year-old female, who underwent complete excision of the tumor and received six courses of postoperative adjuvant cisplatin-based combination plus radiation therapy simultaneously and is still alive and well after more than 10 years. In addition, according to the diagnostic criteria of primary peritoneal serous carcinoma from the Gynecologic Oncology Group, (1) both ovaries must be normal in size (<4 cm in largest diameter) or enlarged by a benign process; (2) tumor involvement at the extravarian sites must be greater than that on the surface of either ovary; (3) microscopically, the ovarian component must be nonexistent, confined to ovarian surface epithelium with no evidence of cortical invasion, involving surface epithelium with less than 5 mm × 5 mm within the stroma; and (4) histologic and cytologic characteristics of the tumor must be predominantly of the serous type or identical to any grade of ovarian papillary tumor [15]. Taken together, we suggest that this could be a case a poorly differentiated adenocarcinoma of unknown origin in place of a primary peritoneal serous cystadenocarcinoma.
as the authors had concluded [1], because we are not entirely convinced that an assumption of peritoneal papillary serous cystadenocarcinoma could be made based only on an isolated malignancy within the abdominal wall.

Nevertheless, we congratulate Dr Wang and his colleagues [1] for their successful efforts, as their excellent work in the management of this patient is worthy of being applauded.

**Conflicts of interest**

The authors declare that they have no conflicts of interest.

**References**


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