

Is liver resection justified for ovarian sarcoma liver metastases?

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ABSTRACT

Ovarian sarcoma represents an aggressive subtype of ovarian malignancies which is characterized by poor outcomes. However, it seems that applying the principles of radical surgery might increase the long-term outcomes especially if no residual disease is achievable. Even though, most cases will experience a recurrent disease. As expected a significant number of cases will present disseminated lesions and will be therefore submitted to palliative treatment.

The aim of the current paper is to present two such cases, the first one being diagnosed with a metachronous metastatic liver lesion while the second one being diagnosed with synchronous liver metastases.

Keywords: ovarian sarcoma, debulking, liver metastases, liver resection

INTRODUCTION

Ovarian sarcoma represents a very aggressive subtype of ovarian malignancies, which is usually associated with very poor outcomes, the overall survival being of less than one year in the absence of a radical therapeutic strategy [1]. The improvement in the field of surgical technique and the benefits obtained in epithelial ovarian cancer encouraged surgical oncologists to apply the same principles when it comes to ovarian sarcoma [2]. The benefits of this aggressive surgical approach have been immediately demonstrated, cases submitted to complete debulking surgery reporting a significantly better prognosis when compared to cases submitted to systemic chemotherapy. However, it seems that ovarian sarcoma patients carry a poorer prognostic through all

FIGO stages when compared to epithelial ovarian cancer [3]. Even though, a significant number of patients will experience recurrent disease, cases presenting isolated metastases being considered as candidates for secondary cytoreductive surgery.

The aim of the current paper is to present the cases of two patients diagnosed with isolated liver metastases who were successfully submitted to debulking surgery.

CASE REPORTS

The first case was the one of a 57 year-old patient who was initially submitted to surgery for presumed epithelial ovarian carcinoma, at that moment a total hysterectomy with bilateral adnexectomy and pelvic lymph node dissection being performed. The histo-

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Article History:

Received: 14 July 2022

Accepted: 1 August 2022

pathological studies came to demonstrate the presence of an ovarian leiomyosarcoma and the patient was further deferred to the oncology service. At two-year follow up she was diagnosed with an isolated liver metastasis and was further submitted to an atypical liver resection, the histopathological studies confirming the metastatic origin of the tumor. Postoperatively she was readressed to the oncology service in order to be resubmitted to adjuvant chemotherapy. The second patient was diagnosed with bilateral ovarian tumors and a liver lesion, the initial suspicion being of epithelial ovarian carcinoma with isolated parenchymatous liver lesions. The patient was further submitted to surgery, a total hysterectomy en bloc with bilateral adnexectomy, omentectomy, pelvic and para-aortic lymph node dissection being performed; the two hepatic lesions were resected by performing two atypical liver resections. The post-operative outcome was a simple one, the patient being deferred to the oncology service one month after surgery. The histopathological studies demonstrated the presence of an ovarian carcinosarcoma, the specimen presenting negative resection margins.

DISCUSSIONS

Ovarian sarcoma usually originates from the smooth muscle and account less than 1% of all ovarian malignancies [2]. Due to the rarity of cases, experience in regard of this treatment is usually borrowed from the one reported in epithelial ovarian cancer. However, it seems that even if complete debulking surgery is achieved, the long-term outcomes for ovarian sarcomas remain poorer throughout all the FIGO stages. Therefore, in a study conducted on 11 patients diagnosed with ovarian sarcoma submitted to debulking surgery the patients were matched to cases diagnosed with similar stages of the disease but with epithelial ovarian adenocarcinomas; although all patients were submitted to surgery by the same surgical team and by following the same principles, cases diagnosed with sarcoma reported an overall survival rate of 90,5 months while those diagnosed with epithelial ovarian cancer reported an overall survival rate of 113 months; the difference was also present when analyzing patients with different stages of the disease. In this respect, the authors reported an overall survival rate of 62 months for stage IIIB ovarian sarcoma and respectively of 81 months for those with epithelial ovarian tumors, 14,5 months for

patients with stage IIIC ovarian sarcomas and respectively 55 months for epithelial ovarian cancer and 2 months for stage IV ovarian sarcomas and 6 months for epithelial ovarian cancer [3]. All these data come to demonstrate once again the aggressiveness of these tumors when compared to epithelial ovarian cancer; however a benefit in terms of survival is demonstrated when compared to cases submitted to chemotherapy alone [4-8]. In this respect, attention was focused on identifying patients who could benefit most after resection. In a study conducted by Sood et al. and published in 1998 the authors came to demonstrate that in ovarian sarcoma patients diagnosed in advanced stages of the disease have better prognostic when submitted to maximal debulking surgery followed by adjuvant platinum-based chemotherapy are expected to report the most important survival benefit [9].

When it comes to the role of liver surgery for metastatic sarcomas, only few studies have been published so far; as expected, the best results were obtained in cases with gastrointestinal stromal primaries, diagnosed with metachronous lesions, in the absence of extrahepatic disease and in which negative resection margins were achieved [10-15].

As for the cases we presented in the current paper, the first patient was diagnosed with a recurrent, isolated, limited to the liver lesion after a disease-free interval of two years, therefore, we considered it to be the perfect candidate for resection; meanwhile, in the second case, the presumptive diagnostic was of epithelial ovarian adenocarcinoma and was further submitted to debulking surgery, the final result of a sarcoma being a histopathological surprise. However, obtaining a curative surgical procedure with negative resection margins increased the chances to obtain a benefit in terms of survival.

CONCLUSIONS

Although is associated with a poorer prognostic, ovarian sarcomas seem to benefit from radical surgery especially if negative resection margins are achieved. Further on, other prognostic factors seem to be represented by the stage at the time of the diagnostic, the timing of apparition of metastatic disease and by the association of adjuvant chemotherapy. However, whenever maximal debulking surgery is achievable, cytoreductive surgery should not be excluded.

Conflict of interest: none declared

Financial support: none declared

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