SECONDARY CYTOREDUCTIVE SURGERY IN RECURRENT UTERINE LEIOMYOSARCOMA

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Introduction

Uterine leiomyosarcoma (uLMS) is a rare gynaecological tumour with annual incidence of 0.64 per 100,000 women and represents only 1-2% of uterine malignancies. Evidence in literature about the management of recurrent uLMS is limited and it mainly supports the role of secondary cytoreductive surgery (SCS) [1,2]. The aim of this study is to evaluate the surgical and oncological outcomes of patients with recurrent uLMS treated with SCS in a multi-institutional case series.

Materials and Methods

All consecutive patients who underwent surgery for recurrent uLMS from 01/2010 to 01/2018 were included. Recurrent disease was defined as any relapse which occurred at least 6 months after primary surgery. Patients who had re-operation within 6-months from initial surgery for radicalization and/or completion (e.g. subsequent hysterectomy after myomectomy, or cytoreduction to achieve complete tumour resection in advanced stage) were excluded. Detection of recurrence was made with imaging (CT-scan, MRI-scan or US-scan) or clinical examination. All patients underwent whole body CT-scan before SCS. Complete macroscopic tumour resection was the objective of SCS in all women.

Intra-operative complications were graded according to the Common Terminology Criteria for Adverse Events (CTCAE) system (version 4.03). Post-operative complications were obtained from the records of all hospital admissions and follow-up consultations up to 180 days post-surgery. These were graded according to the Clavien-Dindo grading system.

Results

36 patients were treated with SCS for recurrent uLMS in the study period. Clinico-pathologic characteristics of the population are shown in Table 1. Median time to first recurrence was 13 months (range, 4-159). Intra- and post-operative outcomes of SCS are demonstrated in Table 2.

Only 3 (8.3%) early grade 3 post-operative complications were observed: two patients had a nephrostomy placement (one due to ureteric stenosis, the second due to urinoma) and one patient underwent emergency laparotomy due to sheath dehiscence. 33/36 (91.7%) of patients had no residual tumour at the end of surgery. Median follow-up was 40.5 months (range, 1-115). 29/36 (80.5%) had a second recurrence. Median time to recurrence from SCS was 11 months (95% CI, 7.8-14.1); median OS from SCS was 73 months (95% CI, 28.7-117.2) (Figure 1).

Median time to adjuvant treatment after SCS (chemotherapy or radiotherapy) was 42 days (range, 30-78).

Table with 2 columns: Characteristic, Number, (%). Rows include: Total number = 36, Median age at SCS (years), range, Original FIGO stage, LMS histology sub-type, Original Grade, Initial adjuvant treatment, Median time to first recurrence (months), range, Neo-adjuvant chemotherapy before SCS.

Table 1: Clinical and pathologic characteristics of patients treated with secondary cytoreduction

Table with 2 columns: Characteristic, Number, (%). Rows include: Total number = 36, Site of recurrence, Median diameter of largest mass found at SCS (cm), range, Positive lymph nodes at SCS, Bowel resection, Bladder surgery, Upper abdominal surgery, Residual tumour, Median estimated Blood Loss (mL), range, Intra-operative complications, Early post-operative (0-30days) complications, Hospitalisation (days), range, Late post-operative (31-180days) complications, Adjuvant treatment.

Table 2: Secondary cytoreduction peri-operative outcomes

Figure 1: Disease-free survival (DFS) and overall survival (OS) of the whole population from SCS

Conclusion

The low incidence of major intra- and post-operative complications emphasizes the feasibility of SCS in patients with recurrent uLMS referred to tertiary centers. Moreover, SCS does not prolong time to adjuvant treatment, when compared with literature data. SCS to no residual disease should be always considered in the management of recurrent uLMS.

References:

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2. Rauh-Hain JA, et al. Int J Gynecol Cancer. 2014 Oct;24(8):1434-40.