Does the localisation of tumour at Stage I endometrial endometrioid adenocarcinoma have an impact on invasion of the tumour and individualisation of the surgical procedure?

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Summary

Objective: To detect whether the localisation of the tumour has an impact on the dissemination of the tumour and whether or not surgical procedures should be individualized according to the localisation of the tumour. *Material Method:* 106 clinically surgically stage I endometrial endometrioid carcinoma cases treated multi-institutionally at Gulhane Military Medical Academy (GATA) and Dr. Zekai Tahir Burak (ZTB) Women's Health Education and Research Hospital Gynecologic Oncology Units in the last five years were evaluated retrospectively. The tumours localised near the internal cervical os and not invading the cervical canal were accepted as lower uterine segment (LUS) localisation and the corporal location as upper uterine segment (UUS) localisation. *Results:* Tumour localisation was more frequent in the upper segment than LUS (85.9% vs 14.1%). There was no statistically significant difference between only endometrial and only serous invasion rates. Myometrial invasion less than one-half was significantly higher in the UUS group than the LUS group ($p < 0.05$). Lymph vascular space involvement rate was significantly higher in the LUS group (60%, 9/15) than the UUS group (23 %, 21/91), ($p < 0.01$). Positive peritoneal cytology rate was 20% (3/15) in the LUS group and 6.6% (6/91) in the UUS group ($p > 0.05$). *Conclusion:* Patients with LUS involvement should be considered as high-risk patients. Thus more expanded surgery must be taken into consideration. In this study a limitation was the low number of patients with LUS involvement. Larger prospective studies are necessary to confirm our results.

Key words: Endometrial cancer, Tumour invasion, Surgical procedure.

Introduction

Endometrioid adenocarcinoma constitutes approximately 8.4% of endometrial carcinoma cases [1]. Myometrial invasion rate and the grade of the disease are important indicators in these histopathologic types due to the extent of the surgical procedure and dissemination of the disease [2]. Histologic and nuclear grades can be accurately diagnosed in the preoperative period by endometrial sampling [3]. Histologic and nuclear grades are equally accepted and used by FIGO and WHO pathology committees [4, 5]. Although an accurate myometrial invasion rate can be detected by magnetic resonance imaging (MRI), the gross and pathologic intraoperative examination of the specimen is cheaper and more effective [6]. The relation among tumour grade, rate of myometrial invasion and lymph node involvement has been reported previously. Moreover myometrial invasion and nodal involvement rates increase by indifferentiation of the tumour [2, 7-10].

The endometrial cavity can be divided into two segments: lower uterine segment (LUS) and the upper uterine segment (UUS) (corpus mucosa proper) [7]. Endometrial carcinomas usually arise in the US, though some cases appear to originate from the LUS [11].

According to some authors, localisation of the tumour may be a prognostic factor and it is postulated that localisation near the cervical canal shows early cervical involvement and rapid dissemination. Moreover isthmic tumours tend to have more pelvic-paraaortic lymph node involvement [2, 12, 13]. Lower uterine segment localization of the tumour may be related to more myometrial invasion, more lymph node involvement rates and more positive peritoneal cytology and higher grade than UUS localisation [12, 13].

LUS and UUS tumors can be regarded as different tumours due to different immunohistochemistry, clinicopathology and microsatellite involvement [12].

The aim of the study was to detect whether localisation of the tumour has an impact on the dissemination of the tumour and whether or not the surgical procedure should be individualised according to the localisation of the tumour.

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recurrence rate [15, 16, 20-22]. Our data are consistent with the studies mentioned above. However, the role of the extent of surgical staging and adjuvant therapies is not obvious.

Phelan *et al*. [23] concluded that LUS involvement was not correlated with a worse outcome in the absence of adverse pathologic features and that adjuvant radiotherapy should not be used in Stage I endometrial carcinoma by analysing 98 cases with 42% LUS involvement. In another study by Irwin and colleagues [16] the significance of LUS involvement was lost after control for pathologic factors on multivariate analysis. In contrast with these findings, several other studies imply a more aggressive behaviour of LUS involvement [8-12]. Lower segmental localised tumours are seen in older ages, have higher grade, deeper myometrial invasion and more lymph vascular space and pelvic lymph node involvement rates. Patients with LUS involvement should be considered as high-risk patients. Therefore more expanded surgery must be taken into consideration. In this study a limitation is the low number of patients with LUS involvement, thus larger prospective studies are needed.

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