Lymph node status (Core)

The anatomic location and number of lymph nodes dissected, the number containing tumour and the size of the largest tumour deposit should be accurately documented in the pathology report. According to TNM8,¹ nodal involvement should be recorded as the presence of isolated tumour cells (ITC, <0.2 mm), micrometastases (MIC, 0.2-2 mm) or macrometastases (MAC, >2 mm). MAC are regarded as pN1, MIC as pN1 (mi) and ITCs are pN0 (i+); ITCs do not upstage a neoplasm. Involvement of pelvic and/or para-aortic lymph nodes by uterine sarcoma will upstage the sarcoma. The number of lymph nodes examined and number of lymph nodes involved by tumour should be reported for regional lymphadenectomies, if performed.

Because of the low risk of metastatic disease in lymph nodes, routine lymph node dissection is typically not undertaken in low stage uterine leiomyosarcomas.²⁻⁴ Moreover, lymphadenectomy is not routinely undertaken for uterine leiomyosarcoma as it does not appear to impact overall survival.⁴⁻⁶ Nevertheless, lymph node resection should be performed if the lymph nodes appears enlarged or suspicious.⁷ The reported frequency of lymph node involvement in low grade endometrial stromal sarcomas ranges from 3.6% to 10%,⁸⁻¹⁰ and from 10.2% to 44% for high grade endometrial stromal sarcoma.^{8,11} The prognostic importance of lymphadenectomy for endometrial stromal sarcomas has been a subject of debate,^{9,12-15} although a recent meta-analysis concluded that for localised endometrial stromal sarcoma and leiomyosarcoma, lymphadenectomy is not recommended.⁶

Lymph node metastasis is a significant prognostic factor in uterine adenosarcoma.¹⁶ However, lymphadenectomy is not typically performed unless lymph nodes appear enlarged and/or suspicious as the rate of nodal metastasis is low (6.5%).¹⁷

References

- 1 Brierley JD, Gospodarowicz MK and Wittekind C (eds) (2016). Union for International Cancer Control. TNM Classification of Malignant Tumours, 8th Edition, Wiley, USA.
- 2 George S, Serrano C, Hensley ML and Ray-Coquard I (2018). Soft Tissue and Uterine Leiomyosarcoma. *J Clin Oncol* 36(2):144-150.
- 3 Goff BA, Rice LW, Fleischhacker D, Muntz HG, Falkenberry SS, Nikrui N and Fuller AF, Jr. (1993). Uterine leiomyosarcoma and endometrial stromal sarcoma: lymph node metastases and sites of recurrence. *Gynecol Oncol* 50(1):105-109.
- Nesrine T, Ines Z, Abdelwahed N, Ali AM, Nadia B, Monia H, Hatem B, Maher S and Khaled R (2019). Prognostic factors and the role of pelvic lymphadenectomy in uterine leiomyosarcomas. SAGE Open Med 7:2050312119856817.
- 5 Seagle BL, Sobecki-Rausch J, Strohl AE, Shilpi A, Grace A and Shahabi S (2017). Prognosis and treatment of uterine leiomyosarcoma: A National Cancer Database study. *Gynecol Oncol* 145(1):61-70.
- 6 Si M, Jia L, Song K, Zhang Q and Kong B (2017). Role of Lymphadenectomy for Uterine Sarcoma: A Meta-Analysis. *Int J Gynecol Cancer* 27(1):109-116.

- 7 Leitao MM, Sonoda Y, Brennan MF, Barakat RR and Chi DS (2003). Incidence of lymph node and ovarian metastases in leiomyosarcoma of the uterus. *Gynecol Oncol* 91(1):209-212.
- 8 Seagle BL, Shilpi A, Buchanan S, Goodman C and Shahabi S (2017). Low-grade and high-grade endometrial stromal sarcoma: A National Cancer Database study. *Gynecol Oncol* 146(2):254-262.
- 9 Zhang Y, Li N, Wang W, Yao H, An J, Li N, Sun Y and Wu L (2020). Long-term impact of lymphadenectomies in patients with low-grade, early-stage uterine endometrial stroma sarcoma. J Obstet Gynaecol Res 46(4):654-662.
- 10 Dos Santos LA, Garg K, Diaz JP, Soslow RA, Hensley ML, Alektiar KM, Barakat RR and Leitao MM, Jr. (2011). Incidence of lymph node and adnexal metastasis in endometrial stromal sarcoma. *Gynecol Oncol* 121(2):319-322.
- 11 Malouf GG, Lhommé C, Duvillard P, Morice P, Haie-Meder C and Pautier P (2013). Prognostic factors and outcome of undifferentiated endometrial sarcoma treated by multimodal therapy. *Int J Gynaecol Obstet* 122(1):57-61.
- 12 Amant F, Coosemans A, Debiec-Rychter M, Timmerman D and Vergote I (2009). Clinical management of uterine sarcomas. *Lancet Oncol* 10(12):1188-1198.
- 13 Barney B, Tward JD, Skidmore T and Gaffney DK (2009). Does radiotherapy or lymphadenectomy improve survival in endometrial stromal sarcoma? *Int J Gynecol Cancer* 19(7):1232-1238.
- 14 Zhou J, Zheng H, Wu SG, He ZY, Li FY, Su GQ and Sun JY (2015). Influence of different treatment modalities on survival of patients with low-grade endometrial stromal sarcoma: A retrospective cohort study. *Int J Surg* 23(Pt A):147-151.
- Shah JP, Bryant CS, Kumar S, Ali-Fehmi R, Malone JM, Jr. and Morris RT (2008).
 Lymphadenectomy and ovarian preservation in low-grade endometrial stromal sarcoma.
 Obstet Gynecol 112(5):1102-1108.
- 16 Nathenson MJ and Conley AP (2018). Prognostic factors for uterine adenosarcoma: a review. *Expert Rev Anticancer Ther* 18(11):1093-1100.
- 17 Tropé CG, Abeler VM and Kristensen GB (2012). Diagnosis and treatment of sarcoma of the uterus. A review. *Acta Oncol* 51(6):694-705.