IJAE
Vol. 123, n. 1 (Supplement): 116, 2018
ITALIAN JOURNAL OF ANATOMY AND EMBRYOLOGY

Imaging, immunohistochemistry and ultrastructure of a primary vaginal leiomyosarcoma

Rosemarie Heyn[1], Vincenzo Petrozza[2], Natale Porta[2], Camilla Certelli[3], Ezio Battaglione[1], Giacomo Corrado[4], Enrico Vizza[3], Giuseppe Familiari[1]

[1] Laboratory of Electron Microscopy Pietro Motta, Department SAIMLAL, Sapienza Università di Roma, Roma
[2] Histology Unit, Department of Medico-Surgical Sciences and Biotechnologies, Sapienza Università di Roma, ICOT Hospital, Latina
[3] Gynecologic Oncologic Unit, Department of Oncologic Surgery, National Cancer Institute Regina Elena-IFO, Roma
[4] Gynecologic Oncology Unit, Department of Obstetrics and Gynecology, Università Cattolica del Sacro Cuore, Roma

Primary vaginal leiomyosarcomas (LMS) are rare, recurrent tumours with an unknown etiology; the prognosis is poor and there is no consensus guideline on their management (1-2). Surgical resection is generally the gold standard. Due to their rarity there are few studies in the literature including immunohistochemistry and/or ultrastructure (2-4). Herein a primary vaginal LMS is analyzed. Magnetic Resonance Imaging identified a nodular mass in the anterior vaginal wall of a 58-year-old previously hysterectomized woman; it infiltrated the urethra but not the rectovaginal septum. Iliac lymph nodes were negative and a total body CT excluded the presence of distant metastasis. An anterior pelvic exenteration was performed with continent urostomy and creation of a neovagina. The biopsy showed a vaginal LMS that was positive for vimentin, α-smooth muscle actin, caldesmon, desmin, p16 and p53. The sample was fixed and prepared for light microscopy, transmission and scanning electron microscopy. The ultrastructural features showed hypercellularity, moderate mitotic index, nuclear pleomorphism, indented nuclear membrane, prominent nucleoli, absence of intercellular junction complexes, and a dense stroma. No dark, intermediate nor light cells could be recognized as reported (3), may be due to a highly undifferentiated and malignant tumor. After 2 years of surveillance follow-up, the patient is fine and without recurrence. According to the literature, there is still no consensus on the fact that this tumor arises de novo or as a malignant change from a leiomyoma (5-6). The patient had uterine leiomyomas and the vaginal hysterectomy might have seeded atypical cells in the vagina. However, routine uterine histology showed no atypical cells. In conclusion, best outcomes occur when the tumour is small, localized, and can be removed surgically with wide, clear margins, as in this case. As there are different kinds of malignant mesenchymal tumors, biopsy followed by immunohistochemistry and electron microscopy still represents a good diagnostic choice. The question regarding the origin of vaginal LMS still remains open.

References

[1] Keller NA & Godoy H. (2015) Case Rep Obstet Gynecol 2015: 363895.
[2] Akhtar et al. (1978) Tex Med 74(9): 67-71.
[3] Ferenczy et al. (1971) Cancer 28(4): 1004-1018.
[4] Tobon et al. (1973) Cancer 32(2): 450-457.
[5] Yanai et al. (2010) Pathol Int 60: 506-509.
[6] Yogesh et al. (2005) Aust NZ J Obstet Gynaecol 45: 96–97.

Key words

Leiomyosarcoma, vagina, electron microscopy, immunohistochemistry, imaging.

http://www.fupress.com/ijae