Journal of Obstetrics, Gynecology and Cancer Research | ISSN: 2476-5848

Primary Vaginal Leiomyosarcoma: A Case Report and Review of the Articles

Elham Shirali[1], Fariba Yarandi[2], Mostafa Safavi[3], Omid Hemmatian[4], Marjan Ghaemi[5]*

1. *Associated Professor, Gynecologist-Oncologist, Yas Hospital, Tehran University of Medical Sciences, Tehran, Iran*
2. *Professor, Gynecologist-Oncologist, Yas Hospital, Tehran University of Medical Sciences, Tehran, Iran*
3. *Urologist, Uro-oncologist, Yas Hospital, Tehran University of Medical Sciences, Tehran, Iran*
4. *Medical Doctor, Yas Hospital, Tehran University of Medical Sciences, Tehran, Iran*
5. *Associated Professor, Ob-Gynecologist, Kamali Hospital, Alborz University of Medical Sciences, Karaj, Iran*

Article Info

10.30699/jogcr.4.3.117

Received: 2019/05/18;
Accepted: 2019/09/01;
Published Online: 27 Sept 2019;

Use your device to scan and read the article online

Corresponding Information:
Marjan Ghaemi, Kamali Hospital, Alborz University of Medical Sciences, Karaj, Iran
Email: Marjan_ghaemi@yahoo.com
Tel: 0989121967735

ABSTRACT

Background & Objective: Primary vaginal sarcomas are extremely rare and counts about 2-3% of all vaginal malignancies. We report a case with vaginal leiomyosarcoma which was treated by radical hysterectomy.

Case Report: A 46 year old woman from Iraq, referred to Yas Hospital by chief complaint of post-coital bleeding and a vaginal mass with pathology report of vaginal leiomyosarcoma. She underwent radical hysterectomy with bilateral salpingo-oophorectomy and partial vaginectomy (2/3 upper of the vagina). She refused to receive chemotherapy after surgery. In 3 years follow up, she did not have any recurrence.

Conclusion: Experiences about vaginal leiomyosarcoma are not sufficient due to rarity of the disease. However, based on review of the literature surgery is still the first choice followed by both chemotherapy and radiotherapy that are preferred based on current reports.

Keywords: Primary vaginal sarcomas, Radical hysterectomy, Vaginal Leiomyosarcoma

Copyright © 2019, This is an original open-access article distributed under the terms of the Creative Commons Attribution-noncommercial 4.0 International License which permits copy and redistribution of the material just in noncommercial usages with proper citation.

Introduction

Primary vaginal carcinomas are extremely rare and counts about 2-3% of all vaginal malignancies **(1)**. Vaginal sarcomas account only 3.1% **(2)**. Of the all primary sarcoma of the vagina, leiomyosarcoma is a rare soft tissue malignancy originated from smooth muscle and counts about 5 to 10 percent of soft tissue sarcomas. However, leiomyosarcoma is the most common vaginal sarcoma in adult women **(3, 4)**. The most origin of the vaginal leiomyosarcoma is the smooth muscles of the vaginal wall, but may be originated from tissues near the vagina **(5)**. It is suggested that surgical approach followed by radiotherapy or chemotherapy, improves survival in this patient **(6)**. Here we report a vaginal leiomyosarcoma case that was treated by radical surgery. The patient however refused to receive post-operational chemoradiation therapy.

Case Report

A 46-year-old woman referred to Yas hospital Tehran, Iran, in 2019, with chief complaint of post-coital bleeding, vaginal discharge and occasionally dyspareunia for about 8 months. Her past medical and surgical history was not significant. She denied any family history for cancer. On pelvic examination, an about 3×4 cm mass was palpated in upper to middle part of the left lateral wall of vagina. The mass was firm, immobile with sharp borders. Examination of the cervix and uterus was not significant and no pelvic or inguinal lymphadenopathy was detected. In the digital rectal exam, no mass was detected.

Ultrasound showed 38×35 mm sub-mucosal mass in the left wall of the vagina with distinguishing edge. The results of abdomino-pelvic Magnetic Resonance Imaging (MRI) revealed no pathological findings.

The mass was resected in the operating room. The pathology report indicated a 3×3.7×4.5 cm brownish, firmly mass without adhesion to adjust tissue excided. The microscopic view showed multiple areas of cellular spindle cells with high mitosis, mild pleomorphism, few multi-nucleated giant cells and infiltrating fibrosis tissue that was highly suggestive of low-grade leiomyosarcoma **(7)**. The margins of the mass were free of tumor.

She underwent radical hysterectomy, bilateral salpingo-oophorectomy and partial vaginectomy. On frozen section and permanent pathology report, no tumor cells were detected. She refused to receive further chemotherapy or radiation therapy. She is disease free after near 3 years follow up.

Discussion

Smooth muscle tumors, even rare, are reported to be the most common benign and malignant mesenchymal tumors in adult women. Leiomyosarcoma may originate of any part of the vagina and are mostly sub-mucosal **(4)**. The Survival is age dependent and is better in younger age. Stage of the disease is also a predictive factor in survival. Totally, the 5 years survival rate is 43% **(8)**.

Most patients experience vaginal discharge or bleeding or rarely dyspareunia and micturition. Vaginal leiomyosarcoma has local invasion but it can spread hematogenously to lungs **(9)**.

The primary treatment for these tumors is surgery with clear margin **(4)**; however, Peters *et al*. considered pelvic exenteration for long-term survival **(9)**. In young ages with low stage tumors, surgical resection has a better prognosis in comparison to chemotherapy or radiation therapy **(10)**.

Adjuvant radiotherapy may be optional in high-grade sarcoma, recurrence of low-grade tumor or tumor spreading over margin and might decrease the local invasion of the tumor **(4)**. There is no enough data in radiation therapy in vaginal leiomyosarcoma; however, it was reported that postoperative pelvic radiation therapy in early stages in the uterine leiomyosarcoma did not improve the overall survival when compared with observation **(11)**. Chemotherapy in managing vaginal sarcomas is controversy; however, it could be beneficial in high-grade tumors and for cases in which the surgical margins were positive due to systemic effect and relapses prevention **(12, 13)**.

The studies also showed that there was no difference in survival rate between patients with only surgical approach and those with surgery followed by adjuvant chemotherapy or radiation therapy **(8)** and the current literature strongly indicates that primary surgical management continues to be the best option **(1)**.

However, in some studies, the multi-modality method of treatment including surgical approach followed by both chemotherapy and radiotherapy is preferred as it reduces recurrences **(1)**.

Our case was a primary low grade vaginal leiomyosarcoma that was treated surgically. In conclusion, vaginal leiomyosarcoma is a rare cancer of the vagina. The data about the treatment is predominantly through rare case reports. As such, the gynecologic oncologist must manage such cases individually. We manage it surgically and refused to receive chemoradiation post operation and she is disease free but we cannot expand this result to all similar cases. The long term follow up is mandatory to find appropriate management and prognosis of these patients.

Acknowledgements

The authors would like to thank the director and staff of Sarem Women's Hospital.

Funding/Supports

This work was supported by self-funding

Ethical Permission

This study is with patient permission publish her medical data. The identity of the patient was confidential and not disclosed in the study.

Conflict of Interest

The authors declared no conflict of interest regarding the publication of this article.

References

1. Keller NA, Godoy H. Leiomyosarcoma of the Vagina: An Exceedingly Rare Diagnosis. Case Rep Obstet Gynecol. 2015;2015:363895. [DOI:10.1155/2015/363895] [PMID] [PMCID]
2. Jonathan S. Berek NFH. Berek & Hacker's Gynecologic Oncology. 6th edition ed: Wolters Kluwer; 2015.
3. Ben Amara F, Jaouadi M, Jouini H, Nasr M, Malek M, Neji K, et al. Primary leiomyosarcoma of the vagina. Case report and literature review. Tunis Med. 2007;85(1):68-70.
4. Khosla D, Patel FD, Kumar R, Gowda KK, Nijhawan R, Sharma SC. Leiomyosarcoma of the vagina: A rare entity with comprehensive review of the literature. Int J Appl Basic Med Res. 2014;4(2):128-30. [DOI:10.4103/2229-516X.136806] [PMID] [PMCID]
5. Tavassoli FA, Norris HJ. Smooth muscle tumors of the vagina. Obstet Gynecol. 1979;53(6):689-93.
6. Li L, Zhang R, Wu LY, Bai P, Li SM, Li HJ, et al. [Primary leiomyosarcoma of the vagina: a clinical analysis of 9 cases]. Zhonghua Fu Chan Ke Za Zhi. 2012;47(10):747-50.
7. Kurman RJ, Hedrick Ellenson, Lora, Ronnett, Brigitte M. Blaustein's Pathology of the Female Genital Tract: Springer; 2011. [DOI:10.1007/978-1-4419-0489-8]
8. Ciaravino G, Kapp DS, Vela AM, Fulton RS, Lum BL, Teng NN, et al. Primary leiomyosarcoma of the vagina. A case report and literature review. Int J Gynecol Cancer. 2000;10(4):340-7. [DOI:10.1046/j.1525-1438.2000.010004340.x] [PMID]
9. Peters WA, 3rd, Kumar NB, Andersen WA, Morley GW. Primary sarcoma of the adult vagina: a clinicopathologic study. Obstet Gynecol. 1985;65(5):699-704.
10. Curtin JP, Saigo P, Slucher B, Venkatraman ES, Mychalczak B, Hoskins WJ. Soft-tissue sarcoma of the vagina and vulva: a clinicopathologic study. Obstet

Gynecol. 1995;86(2):269-72. [DOI:10.1016/0029-7844(95)00160-S]

11. Reed NS, Mangioni C, Malmstrom H, Scarfone G, Poveda A, Pecorelli S, et al. Phase III randomised study to evaluate the role of adjuvant pelvic radiotherapy in the treatment of uterine sarcomas stages I and II: a European Organisation for Research and Treatment of Cancer Gynaecological Cancer Group Study (protocol 55874). Eur J Cancer. 2008;44(6):808-18. [DOI:10.1016/j.ejca.2008.01.019] [PMID]
12. Pervaiz N, Colterjohn N, Farrokhyar F, Tozer R, Figueredo A, Ghert M. A systematic meta-analysis of randomized controlled trials of adjuvant chemotherapy for localized resectable soft-tissue sarcoma. Cancer. 2008;113(3):573-81. [DOI:10.1002/cncr.23592] [PMID]
13. Hensley ML. Uterine/female genital sarcomas. Curr Treat Options Oncol. 2000;1(2):161-8. [DOI:10.1007/s11864-000-0061-6] [PMID]

How to Cite This Article:

Shirali E, Ghaemi M, Yarandi F, Safavi M, Hemmatian O. Primary Vaginal Leiomyosarcoma: A Case Report and Review of the Articles. J Obstet Gynecol Cancer Res. 2019; 4 (3) :117-119

Download citation:
BibTeX | RIS | EndNote | Medlars | ProCite | Reference Manager | RefWorks