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Clinical Characteristics, Management and Prognosis of Patients with Vaginal Primary Malignant Melanoma

Editorial

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Vaginal primary malignant melanoma (VPMM) is an extremely rare and highly aggressive tumor [1,2]. It accounts for less than 3% of all vaginal malignancies and 0.3-0.8% of all malignant melanomas [1-3]. It is the 2nd most common malignant melanoma of the female genital tract [4]. Until today, less than 300 cases of VPMM have been reported in the English literature [1,2,5,6].

The estimated annual incidence of VPMM is 0.026/100,000 women per year [2,3]. However between various racial or ethnic groups, there are no significant differences in VPMM annual incidence [3,7]. VPMM most commonly occurs in postmenopausal women [8-11]. The median age at diagnosis of VPMM, is 57 years [8-13].

Despite proposed theories, the precise pathogenesis of VPMM still remains unclear [14]. However, an attractive explanation is that VPMM arises from melanocytes located aberrantly in vaginal epithelium [14,15]. Those melanocytes are present in the basal layer of vaginal epithelium in 3% of healthy women [16]. According to this theory, active junctional changes is the initial stage in malignant melanoma development [17].

As VPMM located in areas not exposed to sunlight, it is obvious that ultraviolet radiation is not implicated in its pathogenesis [7].

Although VPMM may arise anywhere in the vagina, it most commonly occurs in the lower one third (34%) and the anterior (38%) vaginal wall [2,8,9,12,15,18,13]. VPMM lesions may be single or multiple, pigmented or nonpigmented [13,19]. Also, most of VPMMs are polypoid and ulcerated [14,19]. Moreover, the clinical appearance of nonpigmented VPMMs may be similar with vaginal epithelial tumors [14,19].

The most common symptoms and signs in patients with VPMM, are: vaginal bleeding (80%), vaginal discharge (25%), palpable vaginal mass (15%) and pain (10%) [5,6,8,9,11,12,14,20].

VPMM is a very aggressive tumor with a propensity of early spread and metastasis development [1,6,21,22]. The extensive vascular and lymphatic network of the vaginal mucosa, explains adequately the aggressive clinical behaviour of VPMM [8,10,20].

Most patients with VPMM, diagnosed with advanced stage disease [1,6,21,22]. More specifically, they have local recurrences in the pelvis and distant metastases in the lungs, liver, bones and brain [8,14]. However, many patients with distant metastasis have synchronous local recurrence in the pelvis [8].

The most common histologic cell type of VPMM, is: epithelioid (55%) [10,14,19]. Other less common histologic cell types of VPMM, are: spindled (17%) and mixed (28%) [10,14,19].

FIGO staging system for vaginal cancer does not incorporate tumor size and regional lymph node status and it is inappropriate for VPMM staging [2,12].

Although there are various treatment options, it has not defined yet an appropriate and effective treatment protocol for patients with VPMM [10,23].

Surgery is the baseline treatment in patients with VPMM [2,10,23,24]. The spectrum of surgical operation varies from conservative (wide local excision) to radical (vaginectomy, pelvic exenteration) [2,10,20]. In patients that wide local excision with clear margins is possible, the role of radical surgery remains unjustified [2,10,23,25]. However in highly selected patients that wide local excision is impossible, pelvic exenteration may be reasonable [2,13].

Lymph node dissection is not recommended in patients with VPMM, because the rate of lymph node metastasis is low [10]. Although lymph node dissection has no survival benefits for patients with VPMM, it leads to significant morbidity [10,23,26].

Moreover the role of elective lymph node sampling in patients with VPMM, remains controversial [2,10,23,24]. Recent years, sentinel lymph node biopsy has gained popularity [10,24,27].

Radiotherapy in patients with VPMM includes vaginal brachytherapy and external pelvic radiotherapy [2,10,28,29].

External pelvic radiotherapy is used as primary treatment for patients who are unable or unwilling to have surgery [2,10,28,29]. Also it is used as preoperative treatment, to reduce tumor size and enable a more conservative surgery [2,10,25,28,29]. Moreover it is used as postoperative adjuvant treatment for patients with tumor size ≥3 cm, incomplete tumor resection or pelvic metastases [2,10,11,23,28,29]. However, although external pelvic radiotherapy reduces the risk of local recurrences, it has no impact on overall survival [13,23,24].

Especially in elderly patients with bad performance status and relevant comorbidities, we prefer postoperative vaginal brachytherapy [5,11,30,31]. It is well tolerated and reduces the risk of local recurrences [13]. Moreover, it is associated with less side effects and better quality of life, compared with external pelvic radiotherapy [5,11,31].

The role of postoperative adjuvant chemotherapy in patients with advanced stage VPMM, remains controversial [32]. Postoperative adjuvant chemotherapy achieve only modest response rates and has no impact on overall survival [25].

Postoperative adjuvant immunotherapy with interferon (IFN) or interleukin-2 (IL-2), confers survival benefits in patients with VPMM at high risk for recurrence. [6,22,24,33-35]. Moreover, the combined use of IFN and IL-2 is superior to the single use of IL-2 [36]. However, the toxicity of immunotherapy is significant [6,22,33,34]. Moreover, IFN associated with the generation of autoantibodies and the induction of autoimmune disorders [37].

The role of combined use of chemotherapy and immunotherapy (biochemotherapy) in patients with advanced stage VPMM has not been established [38]. Moreover, the toxicity of biochemotherapy is significant [24,34].

Patients with VPMM have poor prognosis [35]. As most cases with VPMM diagnosed at advanced stage disease, the prognosis is very poor despite treatment modality [1,6,11,22].

Prognostic factors for patients with VPMM, are: tumor size, tumor growth, lymph node status and treatment method [8,12,23,35]. Among them, tumor size (<3 cm) is the most important prognostic factor [8,12,24]. Tumor thickness is only a weak predictor of survival, in patients with VPMM [8].

The 5-year overall survival of patients with VPMM is 8.4-32.3% [1,8,10,13,15,24,35]. Moreover the prognosis of VPMM is much more unfavourable, compared with other vaginal malignancies and cutaneous malignant melanoma [14].

References

[1]. Creasman W, Phillips J, Menck H (1998) The National Cancer Data Base report on cancer of the vagina. Cancer 83(5):1033-40.

[2]. Piura B (2008) Management of primary melanoma of the female urogenital tract. Lancet Oncol 9(10):973-81.

[3]. Weinstock M (1994) Malignant melanoma of the vulva and vagina in the United States: patterns of incidence and population-based estimates of survival. Am J Obstet Gynecol 171(5):1225-30.

[4]. McLaughlin C, Wu X, Jemal A, Martin H, Roche L, et al (2005). Incidence of noncutaneous melanomas in the U.S. Cancer 103(5):1000-7.

[5]. Androutsopoulos G, Decavalas G (2014) Vaginal primary malignant melanoma: a critical update. J Community Med Health Edu 4(2):e124.

[6]. Terzakis E, Androutsopoulos G, Adonakis G, Zygouris D, Grigoriadis C, et al. (2011) Vaginal primary malignant melanoma: report of four cases and review of the literature. Eur J Gynaecol Oncol 32(1):122-4.

[7]. Hu D, Yu G, McCormick S (2010) Population-based incidence of vulvar and vaginal melanoma in various races and ethnic groups with comparisons to other site-specific melanomas. Melanoma Res 20(2):153-8.

[8]. Reid G, Schmidt R, Roberts J, Hopkins M, et al. (1989) Primary melanoma of the vagina: a clinicopathologic analysis. Obstet Gynecol 74(2):190-9.

[9]. Levitan Z, Gordon A, Kaplan A, Kaufman R (1989) Primary malignant melanoma of the vagina: report of four cases and review of the literature. Gynecol Oncol 33(1):85-90.

[10]. Miner T, Delgado R, Zeisler J, Busam K, Alektiar K, et al. (2004) Primary vaginal melanoma: a critical analysis of therapy. Ann Surg Oncol 11(1):34-9.

[11]. Androutsopoulos G, Terzakis E, Ioannidou G, Tsamandas A, Decavalas G (2013) Vaginal primary malignant melanoma: a rare and aggressive tumor. Case Rep Obstet Gynecol 2013:137908.

[12]. Xia L, Han D, Yang W, Li J, Chuang L, et al. (2014) Primary malignant melanoma of the vagina: a retrospective clinicopathologic study of 44 cases. Int J Gynecol Cancer 24(1):149-55.

[13]. Frumovitz M, Etchepareborda M, Sun C, Soliman P, Eifel P, et al. (2010) Primary malignant melanoma of the vagina. Obstet Gynecol 116(6):1358-65.

[14]. Gupta D, Malpica A, Deavers M, Silva E (2002) Vaginal melanoma: a clinicopathologic and immunohistochemical study of 26 cases. Am J Surg Pathol 26(11):1450-7.

[15]. Irvin W Jr, Bliss S, Rice L, Taylor P Jr, Andersen W (1998) Malignant melanoma of the vagina and locoregional control: radical surgery revisited. Gynecol Oncol 71(3):476-80.

[16]. Nigogosyan G, Delapava S, Pickren J (1964) Melanoblasts in Vaginal Mucosa. Origin for Primary Malignant Melanoma. Cancer 17:912-3.

[17]. Allen A, Spitz S (1953) Malignant melanoma; a clinicopathological analysis of the criteria for diagnosis and prognosis. Cancer 6(1):1-45.

[18]. Batsakis J, Suarez P (2000) Mucosal melanomas: a review. Adv Anat Pathol 7(3):167-80.

[19]. Borazjani G, Prem K, Okagaki T, Twiggs L, Adcock L (1990) Primary malignant melanoma of the vagina: a clinicopathological analysis of 10 cases. Gynecol Oncol 37(2):264-7.

[20]. Piura B, Rabinovich A, Yanai-Inbar I (2002) Primary malignant melanoma of the vagina: case report and review of literature. Eur J Gynaecol Oncol 23(3):195-8.

[21]. Nakagawa S, Koga K, Kugu K, Tsutsumi O, Taketani Y (2002) The evaluation of the sentinel node successfully conducted in a case of malignant melanoma of the vagina. Gynecol Oncol 86(3):387-9.

[22]. Androutsopoulos G, Adonakis G, Ravazoula P, Kourounis G (2005) Primary malignant melanoma of the vagina: a case report. Eur J Gynaecol Oncol 26(6):661-2.

[23]. Kirschner A, Kidd E, Dewees T, Perkins S (2013) Treatment approach and outcomes of vaginal melanoma. Int J Gynecol Cancer 23(8):1484-9.

[24]. Vaysse C, Pautier P, Filleron T, Maisongrosse V, Rodier J, et al. (2013) A large retrospective multicenter study of vaginal melanomas: implications for new management. Melanoma Res 23(2):138-46.

[25]. Leitao MJ (2014) Management of vulvar and vaginal melanomas: current and future strategies. Am Soc Clin Oncol Educ Book e277-81.

[26]. Reeves M, Coit D. Melanoma (2000) A multidisciplinary approach for the general surgeon. Surg Clin North Am 80(2):581-601.

[27]. Abramova L, Parekh J, Irvin W Jr, Rice L, Taylor P, et al. (2002) Sentinel node biopsy in vulvar and vaginal melanoma: presentation of six cases and a literature review. Ann Surg Oncol 9(9):840-6.

[28]. Petru E, Nagele F, Czerwenka K, Graf A, Lax S, et al. (1998) Primary malignant melanoma of the vagina: long-term remission following radiation therapy. Gynecol Oncol 70(1):23-6.

[29]. Buchanan D, Schlaerth J, Kurosaki T (1998) Primary vaginal melanoma: thirteen-year disease-free survival after wide local excision and review of recent literature. Am J Obstet Gynecol 178(6):1177-84.

[30]. Sause W, Cooper J, Rush S, Ago C, Cosmatos D, et al. (1991) Fraction size in external beam radiation therapy in the treatment of melanoma. Int J Radiat Oncol Biol Phys 20(3):429-32.

[31]. McGuire S, Frank S, Eifel P. (2008) Treatment of recurrent vaginal melanoma with external beam radiation therapy and palladium-103 brachytherapy. Brachytherapy 7(4):359-63.

[32]. Signorelli M, Lissoni A, Garbi A, Perego P, Mangioni C (2005) Primary malignant vaginal melanoma treated with adriamycin and ifosfamide: a case report and literature review. Gynecol Oncol 97(2):700-3.

[33]. Jack A, Boyes C, Aydin N, Alam K, Wallack M (2006) The treatment of melanoma with an emphasis on immunotherapeutic strategies. Surg Oncol

15(1):13-24.
[34]. Ives N, Stowe R, Lorigan P, Wheatley K (2007) Chemotherapy compared with biochemotherapy for the treatment of metastatic melanoma: a meta-analysis of 18 trials involving 2,621 patients. J Clin Oncol 25(34):5426-34.
[35]. Huang Q, Huang H, Wan T, Deng T, Liu J (2013) Clinical outcome of 31 patients with primary malignant melanoma of the vagina. J Gynecol Oncol 24(4):330-5.
[36]. Keilholz U, Conradt C, Legha S, Khayat D, Scheibenbogen C, et al. (1998) Results of interleukin-2-based treatment in advanced melanoma: a case record-based analysis of 631 patients. J Clin Oncol 16(9):2921-9.
[37]. Abu-Shakra M, Buskila D, Ehrenfeld M, Conrad K, Shoenfeld Y (2001) Cancer and autoimmunity: autoimmune and rheumatic features in patients with malignancies. Ann Rheum Dis 60(5):433-41.
[38]. Harting M, Kim K (2004) Biochemotherapy in patients with advanced vulvovaginal mucosal melanoma. Melanoma Res 14(6):517-20.