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Case Report

An extremely rare case of vaginal melanoma treated with hysterocolpectomy

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Key words: Vaginal melanoma, vaginal cancer, hysterocolpectomy, rare gynaecological cancers

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Introduction

Primary vaginal carcinomas are rare and account for just 1-2% of all gynaecological malignancies [1]. Vaginal melanomas are even rarer. The incidence of vaginal melanoma is 3 per 10 million women per year [2]. Due to the rarity of the condition, there is no standard management established as yet [3]. We present a patient who was successfully treated with hysterocolpectomy.

Case history

A 77-year-old mother of 5 children presented with a 2 month history of post-menopausal bleeding. She was otherwise healthy and the bleeding was altered blood. There was no associated foul smell, loss of appetite, loss of weight nor altered bowel habits. She had no lower urinary tract symptoms. Her cardiovascular and respiratory system examinations were unremarkable. The abdomen was soft and no masses were found. There was no inguinal lymphadenopathy. Vaginal examination under anaesthesia revealed a black polypoidal growth, 2.5 x 2 cm in size, at the lower half of the anterior vaginal wall involving the urethral orifice (Figure 1). The surrounding vulva appeared normal and the cervix was atrophied.

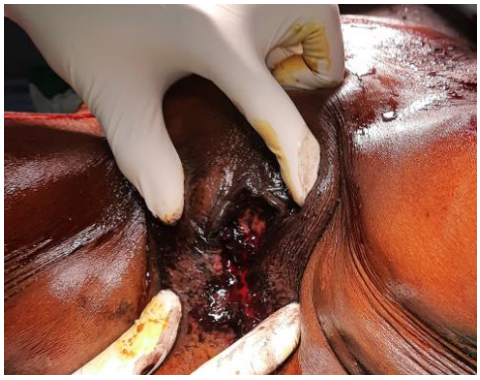

Figure 1: Lesion involving the lower vagina

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Initial histology of the biopsy specimen revealed a melanoma involving the urethral orifice and vagina. Tumor infiltration was not seen in the ectocervix.

After a multidisciplinary discussion, it was planned to perform a hysterocolpectomy. The patient was given general anaesthesia and positioned in the Llyod Davis position. An abdominal approach was made via a midline incision. Once opened into the peritoneum, the uterus and bilateral ovaries were found to be atrophied (Figure 2). There were no tumor deposits or suspicious lesions inside the abdominal cavity. Hysterectomy was carried out similar to a radical hysterectomy as it required removing the upper part of the vagina.

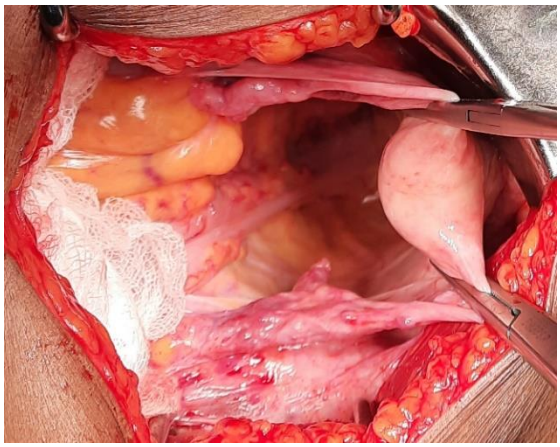

Figure 2: Laparotomy revealed atrophied uterus and ovaries

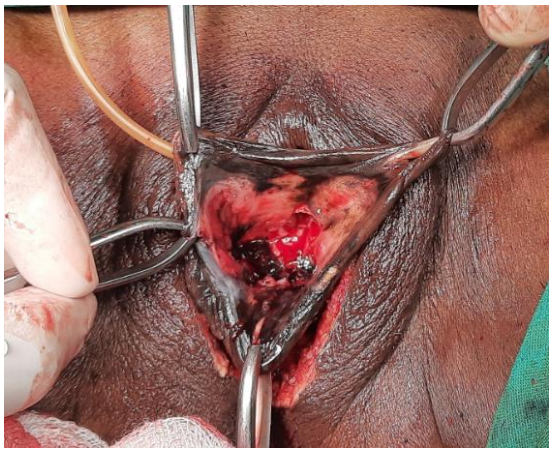

Figure 3: Vulval incision

Bilateral round ligaments were dissected and both ureters were traced. Uterine arteries were ligated from the origin and both infundibulopelvic ligaments were dissected and ligated. Dissection continued down the cardinal and uterosacral ligaments to the upper 1/3 of the vagina. Bilateral pelvic nodes were dissected. Then, vaginal dissection started with the vulva (Figure 3). As the urethral orifice was involved (Figure 4), the lower urethra was excised, guided by the urinary catheter. Careful dissection was made without damaging the rectum and the vagina was completely separated from the paravaginal tissues (Figure 5).

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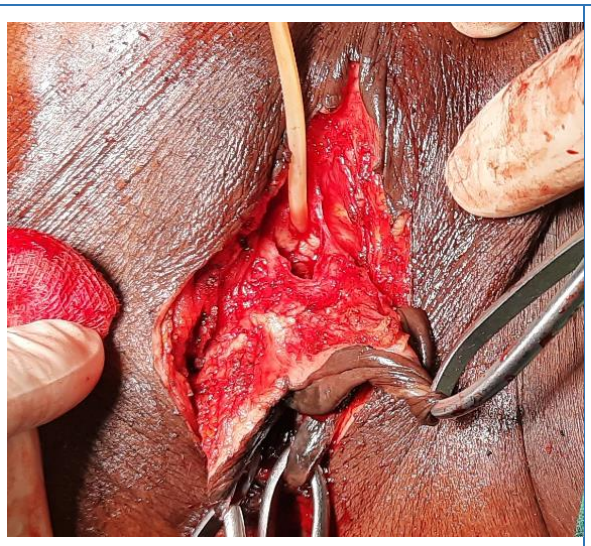

Figure 4: Tumor has infiltrated the urethral orifice

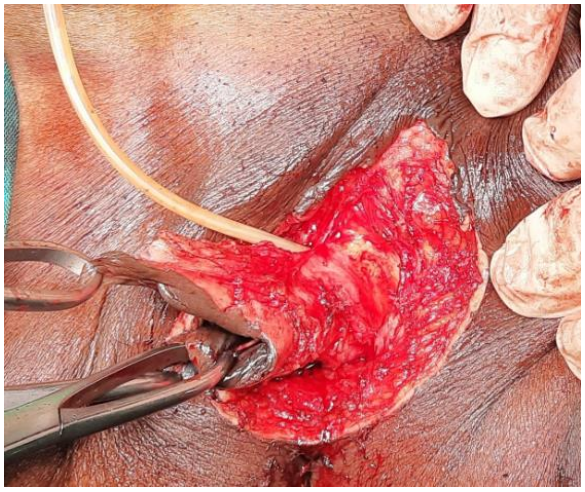

Figure 5: Vaginal dissection of the paravaginal tissues

The specimen was delivered vaginally (Figure 6) and the vulva was repaired with absorbable braided sutures. A drain was inserted abdominally and taken out through the closed vaginal end. Following complete haemostasis, routine abdominal closure was done (Figure 7). She had an uneventful post-operative recovery.

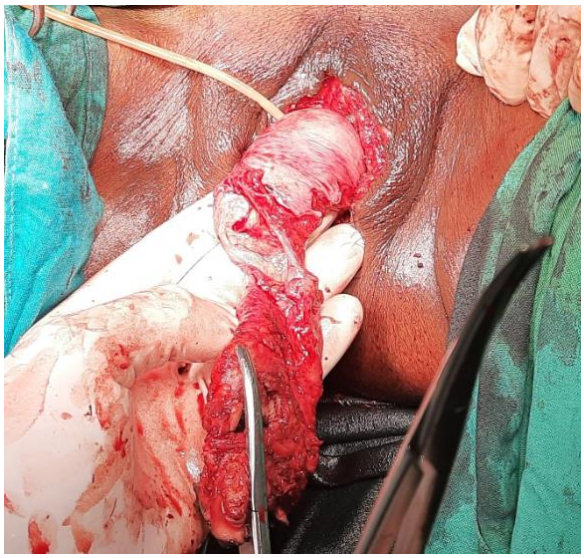

Figure 6: The specimen delivered vaginally.

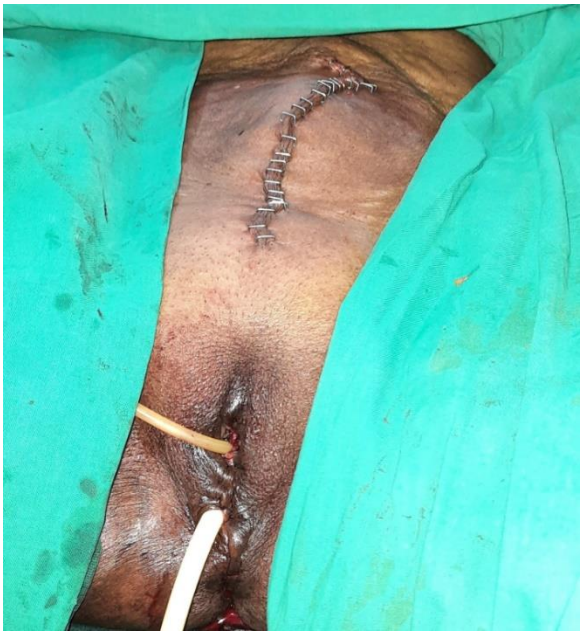

Figure 7: Appearance following the skin closure

The specimen showed a blackish tumor deposit in the lower anterior vaginal cuff (Figure 8) involving the urethra (Figure 9).

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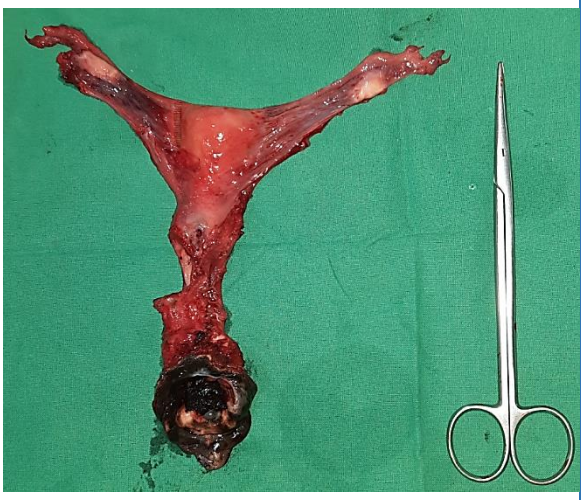

Figure 8: Specimen of the hysterocolpectomy

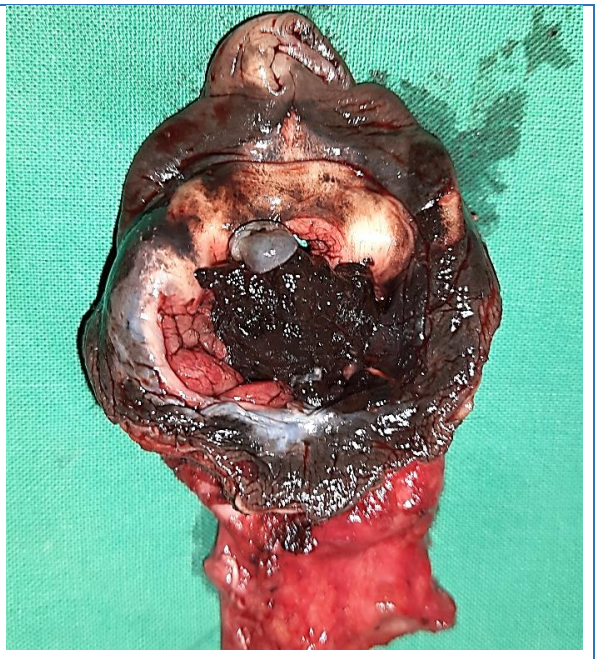

Figure 9: Close view of the urethral involvement in the specimen

On histology, sections from the vaginal cuff revealed squamous epithelium with malignant melanoma composed of malignant oval cells in clusters, heavily laden with dark brown pigment (Figure 10). The tumour had infiltrated to a thickness of 6 mm and the squamous epithelium of the vagina showed Pagetoid spread of melanoma with no extension into the cervix. The closest vaginal cuff resection margin was 2 mm and there were no lymphovascular emboli. None of the pelvic nodes (right 10, left 9) were positive for tumour deposits.

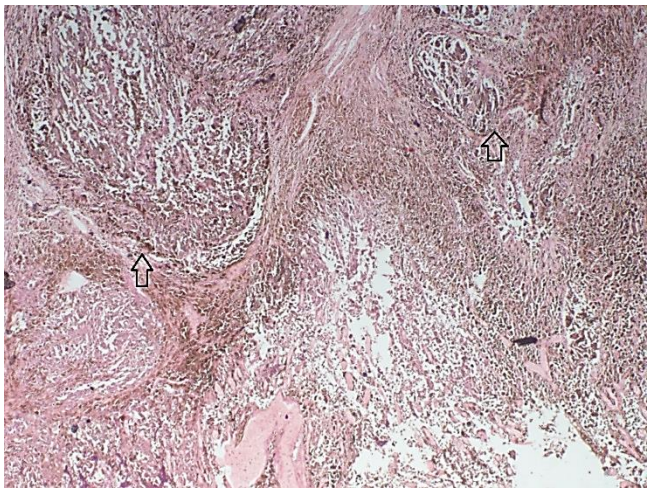

Figure 10: Histology of the specimen. Malignant oval cells of melanoma in clusters heavily laden with dark brown pigment are shown in arrows.

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The patient was arranged for follow-up with clinical examination and ultrasound scan imaging. Up until the present, 5 months postoperative, the patient is alive with no complications.

Discussion

Vaginal melanomas are extremely rare, hence the management is a challenge. They are commonly seen in advanced age and the commonest presentation is post-menopausal bleeding. Post-menopausal vaginal discharge, pain and lump at the vagina have also been presenting symptoms, according to the literature [4].

Although no clear aetiology has been found for vaginal melanoma, cells of origin are thought to be melanocytes in the vaginal epithelium. Due to the rich vascular and lymphatic supply in the vaginal mucosa, vaginal melanomas show an aggressive behavior with a poor prognosis [4]. Case series have found that most melanomas (46%) present at FIGO Stage I where it is confined to the vagina. Yet the 5-year survival is only around 15% [5].

Due to the rarity of the disease, no standard treatment is described. However, surgical excision had been the commonest treatment performed in the case series. According to the literature, various surgical excision methods have been performed including wide local excision, total colpectomy with or without pelvic exenteration, hysterocolpectomy and colpectomy with modified radical hysterectomy [5,6]. She was not a good candidate for a follow-up due to social reasons. Excision is the mainstay of treatment and in this case, the uterus and cervix had to be removed in order to excise the full length of this atrophied, narrow and short vagina. Although the parametrium was not involved, a modified radical hysterectomy approach was made to remove the upper vagina.

Pelvic lymphadenectomy is controversial in the view of overall survival outcome. However, nodal positivity is a sign of a poor prognosis [7]. Since she was not a candidate for repeat surgery, the pelvic nodes were dissected but inguinal node dissection was not done as there was no enlargement. In our setting, sentinel node biopsy is not available. As her lower urethra was involved, reconstruction was done with the adjacent tissue and the urinary catheter was kept in situ for 2 weeks.

Surgery, combined with adjuvant radiotherapy, chemotherapy and immunotherapy (interferon alpha) have been discussed as other modes of treatment [8]. Since the patient is physically weak and at the extreme of age, she was not offered adjuvant radiotherapy.

Conclusions

Vaginal melanoma is an extremely rare gynaecological malignancy that has an aggressive behavior and poor prognosis. Although no standard treatment is published, surgical excision has been the most commonly performed mode of treatment. The patient underwent hysterocolpectomy with pelvic node dissection and the post-operative period was uneventful. Histology confirmed the diagnosis of vaginal melanoma and the excision margins and lymph nodes were free of tumor.

Acknowledgements

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