

# Vaginal Neurilemmoma: Case Report with Brief Review

Shashikant Saini · Mishal Shah · Sanjeev Patni

Received: 21 June 2014 / Accepted: 27 February 2015 / Published online: 14 March 2015  
© Indian Association of Surgical Oncology 2015

## Introduction

Schwannoma (neurilemmoma) is one of the few truly encapsulated benign neoplasm seen in humans [1]. This tumor is derived from Schwann cells that produce collagen and myelin of the nerves. The tumor is almost always solitary and the most common locations are the flexor surfaces of the extremities, neck, mediastinum, retroperitoneum, posterior spinal roots and the cerebellopontine angle [2]. It can arise along the course of any myelinated nerve in the mentioned common sites, and the nerve of origin can be demonstrated in the periphery of the capsule. Any site in the body can be affected by schwannoma as seen rarely in the vagina. We report a case of schwannoma arising from the anterior vaginal wall.

## Case Report

A 40 years female, gravida 3 para 3, presented to us with history of menorrhagia since last 2 months. Patient

had no significant family history of cancer or hereditary disease.

Ultrasonography abdomen report showed a left adnexal mass / submucosal fibroid.

MRI SCAN of the pelvis (Figs. 1 and 2) showed a 10CM \* 9 CM mass occupying the pelvis? Arising from vagina, abutting the rectum and urinary bladder but no obvious infiltration of rectal or bladder wall seen.

## On Examination

General physical and systemic examination was normal, on per vaginum examination a huge submucosal mass was felt, finger could not be passed beyond the mass, cervix could not be examined. Vaginal mucosa was mobile. On per rectal examination an extra luminal huge mass was palpable anteriorly and rectal mucosa was free.

Routine blood investigations were normal. CT thorax was normal.

On cystoscopy both ureteric orifices and bladder mucosa were normal. Patient was planned for exploratory laparotomy.

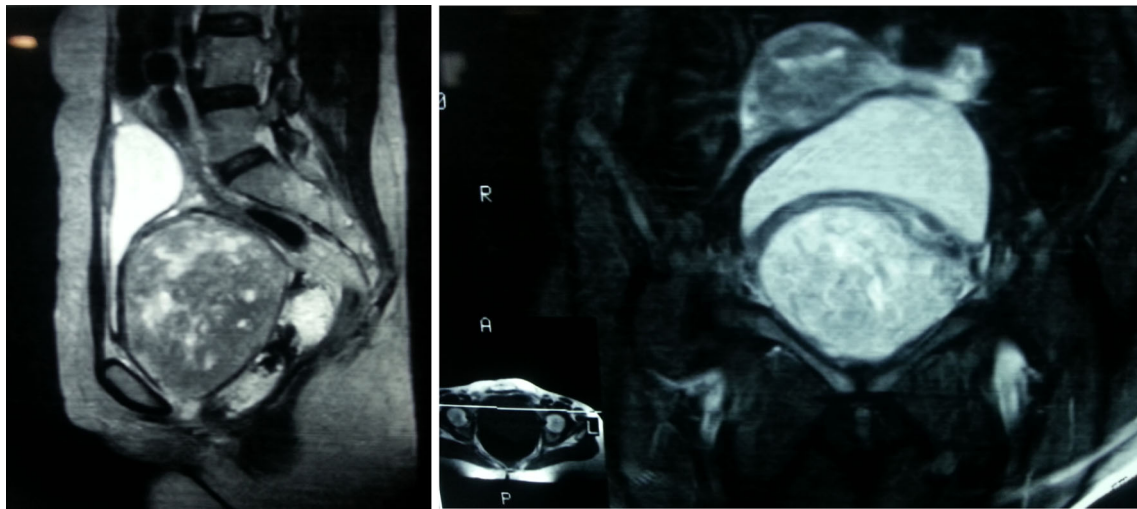
On opening the abdomen a huge mass was palpable coming from the pelvis. A simple hysterectomy was done to get access; the submucosal mass was arising from the anterior vaginal wall, firm in consistency. Excision of the mass with wide excision of anterior vaginal wall was done. Vaginal vault was repaired and hemostasis secured. A drain was kept in the pelvis and abdominal wall closed in layers. Patient had an uneventful recovery and was discharged on

---

S. Saini · M. Shah (✉) · S. Patni  
Department of Surgical Oncology, Bhagwan Mahaveer Cancer  
Hospital and Research Centre, Jaipur, Rajasthan 302017, India  
e-mail: shah\_mishal@yahoo.co.in

S. Saini  
e-mail: sksaini04@yahoo.co.in

S. Patni  
e-mail: sanjeevniidhi@yahoo.com



**Figs. 1-2** MRI scan of the pelvis showing a large homogenous mass ? arising from the vagina

the 8<sup>th</sup> post operative day. Patient is on regular follow up since the last 9 months and has recovered well.

**FINAL HISTOPATHOLOGY REPORT- GROSS** (Fig. 3)—17\*14\*9 cm tumor with attached soft tissue with intact capsule. Cut surface is fleshy whorled appearance with small hemorrhagic areas.

**MICROSCOPIC** (Fig. 4)—shows presence of hypocellular and hypercellular areas (ANTONY A and ANTONY B) forming verocay bodies. Individual cells have elongated curved nuclei.

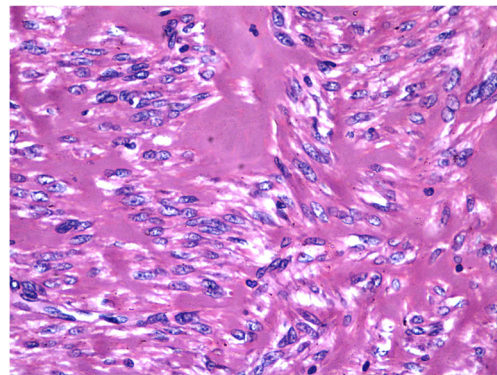
**IMMUNOHISTOCHEMISTRY-** tumor cells express Desmin, SMA and h-Caldesmon and are immunonegative for S-100 and HMB-45.

## Discussion

Schwannoma arise from the small to medium size nerves. The tumor is almost always solitary, circumscribed, encapsulated and eccentrically located. It is disease of adulthood and occurs in (20–60) years of age [3]. The tumor does not destroy or affect the nerve because of its peripheral location. It is a slow growing tumor and its early detection is difficult [4]. The symptoms occur late when the tumor becomes large and depends on its location. [1, 4] Retroperitoneal schwannoma may arise from the cervix, vagina, vulva and ureter as reported in few case reports [4–7]. The symptoms of it may be pain especially if it is large, urinary retention, constipation or as in this



**Fig. 3** Gross pathological specimen of hysterectomy and vaginal mass excision



**Fig. 4** Microscopic picture showing classical antony a and antony b areas (verocay bodies) confirming the diagnosis of neurilemmoma

case, bleeding from vagina [1, 4–8]. Sometimes it is asymptomatic and discovered on routine examination [9]. Imaging (CT scan & MRI) are useful in the diagnosis [10]. Surgery by laparotomy or laparoscopy is the treatment of choice [4, 11]. But incomplete excision may lead to recurrences which occurred in 10% of reported cases. Hence long term follow up is necessary.

**Conflict of Interest** None declared

**Funding** None

## References

- Brooks JS (1999) Disorders of soft tissue (chapter 5). In: Sterberg SS, Antonioli DA, Carter D (eds) *Diagnostic surgical pathology*, 3rd edn. Lippincott William and Wilkins, USA, p 185
- Vogel F, Bouldin TW (1988) The nervous system (chapter 28). In: Rubin E, Farber JL (eds) *Pathology*, 1st edn. Lippincott William and Wilkins, USA, p 1474
- Morris JH (1989) The nervous system (chapter 29). In: Cortan RS, Kumar V, Robbins SL (eds) *Robbins pathologic basis of diseases*, 4th edn. W.B. Company, USA, p 1445
- Terada S, Suzuki N, Tomimatsu N, Akasofu K (1992) Vaginal schwannoma. *Arch Gynecol Obstet* 251(4):203–206
- Obeidat BR, Amarin ZO, Jallad MF (2007) Vaginal schwannoma. a case report. *J Reprod Med* 52(4):341–342
- Inoue T, Kato H, Yoshikawa K, Adachi T, Etoh K, Wake N (2004) Retroperitoneal schwannoma bearing at the right vaginal wall. *J Obstet Gynaecol Res* 30(6):454–457
- LeMaire WJ, Kreiss C, Commodore A, Barker EA (2002) Neurilemmoma: an unusual benign tumor of the cervix. *Alaska Med* 44(3):63–65
- Droeueller W, Herbst AL, Mishell DR and Stenchever MA. In: *Benign gynecological lesions* (chapter 17). *Comprehensive Gynecol. Mosby: USA; 1987, 447*
- Ooi LL, Mack PO (1990) Benign retroperitoneal neurilemmoma—a case report. *Ann Acad Med Singapore* 19(3):410–412
- Nasu K, Arima K, Yoshimatsu J, Miyakawa I (1998) CT and MRI findings in a case of pelvic schwannoma. *Gynecol Obstet Invest* 46(2):142–144
- Melvin WS (1996) Laparoscopic resection of a pelvic schwannoma. *Surg Laparosc Endosc* 6(6):489–491