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The primary aim of *World Journal of Clinical Cases* (WJCC, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

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Malignant peripheral nerve sheath tumor with hemophilic syndrome and bone marrow fibrosis: A rare case report

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Abstract

BACKGROUND

Malignant schwannoma is a rare tumor in the peripheral nervous system, accounting for approximately 5% to 10% of systemic soft tissue sarcomas. Especially, malignant schwannoma occurring in the broad ligament of the uterus with hemophilic syndrome and bone marrow fibrosis is extremely rare in clinical practice. Here, we report the first case of an patient diagnosed with malignant peripheral nerve sheath tumor (MPNST) of the broad ligament of the uterus with hemophilic syndrome and bone marrow fibrosis, and share our reference clinical diagnosis and treatment experience.

CASE SUMMARY

A patient was diagnosed with MPNST of the uterus harboring hemophilic syndrome and bone marrow fibrosis. She received combination, and repeated imaging revealed further encountered rare complications (hemophilia syndrome and bone marrow fibrosis) after two cycles of chemotherapy. Thereafter, combined treatment with pazopanib, gemcitabine, and dacarbazine was initiated. Unfortunately, the patient succumbed to death at hospital after two weeks.

CONCLUSION

This report firstly provided reference clinical practice for a patient with MPNST of the uterus harboring hemophilic syndrome and bone marrow fibrosis. Our case raises a reminder about the tolerance and safety of combination therapy, especially in young women.

Key Words: Malignant peripheral nerve sheath tumor; Hemophilic syndrome; Bone marrow fibrosis; Case report

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Core Tip: We reported an extremely rare case of malignant neurilemmoma of the broad ligament of the uterus. The patient was easily misdiagnosed at the beginning of diagnosis, and in the subsequent treatment process, the patient combined with rare hemophilic syndrome and bone marrow fibrosis, resulting in a very poor prognosis.

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INTRODUCTION

As a schwann cell derived schwannoma, peripheral schwannoma is often derived from neurofibroma or neurofibroma malignancy[1]. However, schwannoma malignancy is rare and makes it difficult to distinguish its primary or malignant origin in clinical practice[2-4]. In addition, nerve sheath tumors originating from Schwann cells in the neuroectoderm or the neurointima of the mesoderm are more common in the limbs, head and neck, and retroperitoneum[5-8].

Peripheral malignant schwannoma located in the pelvic abdomen is extremely rare in clinical practice and difficult to differentiate from other retroperitoneal cystic solid tumors, such as liposarcoma, leiomyosarcoma, and malignant fibrous histiocytoma[9,10]. In addition, malignant nerve sheath tumors located in the pelvic cavity need to be differentiated from tumors of male or female reproductive cells and pelvic wall lymph node metastasis[11,12]. Up to now, due to the extremely low incidence rate of pelvic malignant neurilemmoma reported in recent decades at home and abroad, and the lack of specificity of the disease and clinical treatment guidelines that can be referred to, it is difficult to avoid misdiagnosis, and the prognosis of patients is extremely unsatisfactory[12-15].

In view of this, we reported an extremely rare case of malignant neurilemmoma of the broad ligament of the uterus. The patient was easily misdiagnosed at the beginning of diagnosis, and in the subsequent treatment process, the patient combined with rare hemophilic syndrome and bone marrow fibrosis, resulting in a very poor prognosis. We propose the following situations based on the CARE report checklist.

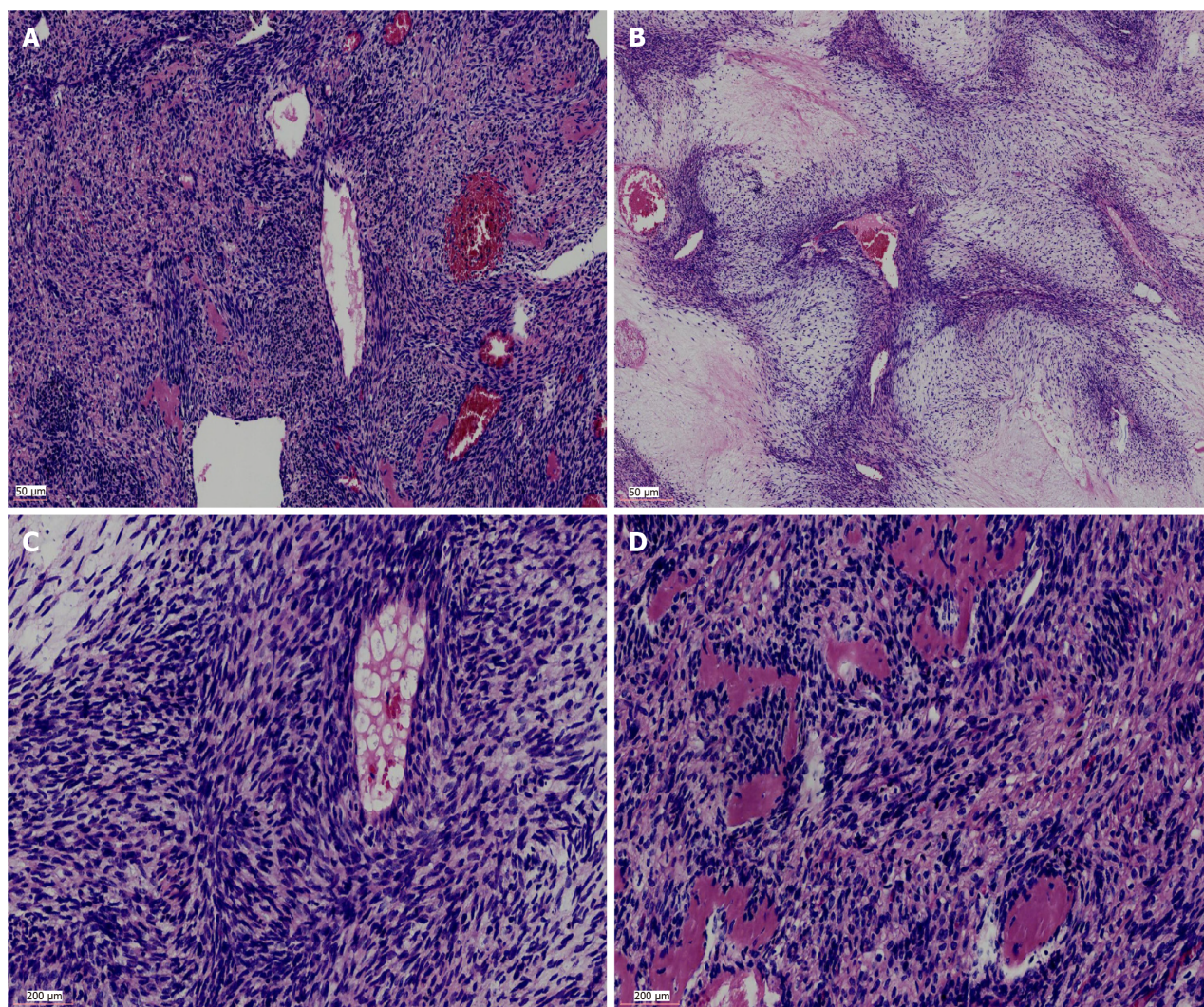
CASE PRESENTATION

Chief complaints

A twenty-six year-old unmarried woman was admitted to our hospital due to intermittent pain and discomfort in the lower abdomen. Prior to this, she had undergone laparoscopic exploration combined with retroperitoneal mass resection at other hospitals.

History of present illness

The postoperative pathological report showed spindle cell sarcoma of the right broad ligament. In order to receive further treatment, we conducted pathological consultations on the patient's tumor lesion. The final consultation opinion showed that the right broad ligament and retroperitoneal malignant tumor were considered as malignant peripheral nerve sheath tumors (Figure 1). At the same time, we also conducted imaging examinations for the patient. Among them, abdominal computed tomography (CT) showed multiple lumpy low-density shadows in the pelvic cavity near the sacral anterior and bilateral iliac vessels, with unclear boundaries and a maximum volume of about 4.3 cm × 3.6 cm × 5.1 cm. Moreover, the lower end of the right ureter was affected, resulting in dilation and hydronephrosis of the ureter and pelvis. Based on the patient's medical history, tumor metastasis was considered. Chest CT showed multiple lesions in both lung lobes, combined with medical history so that we cannot rule out the possibility of tumor metastasis. The results of pelvic magnetic resonance (MRI) examination indicated that after surgery for malignant pelvic neurilemmoma, multiple lesions near the sacral anterior and bilateral iliac vessels are present in the pelvic cavity, and tumor metastasis is considered based on her medical history (Figure 2).



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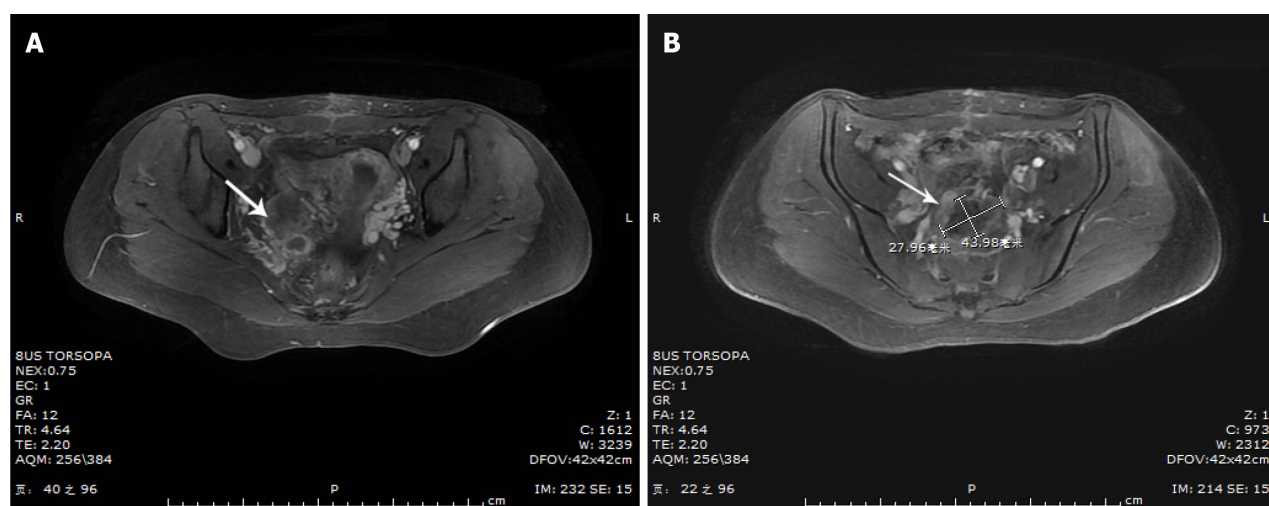
Figure 1 Pathological results of hematoxylin eosin staining. A and B: The tumor lesion is composed of spindle cells arranged in a woven pattern and showing infiltrative growth; C and D: Local cells exhibit epithelial like interstitial mucus changes.

History of past illness

In view of this, we have implemented individualized treatment for the patient's condition, with the specific plan as follows: Doxorubicin liposomes+ifosfamide+arotinib, with a cycle of twenty-one days, and chemotherapy for two cycles. Before the patient received chemotherapy, the blood test results showed no significant abnormalities and no contraindications for chemotherapy. Due to severe bone marrow suppression (grade IV) after chemotherapy, the patient insisted on discontinuing the medication for over a month. Therefore, we consulted with external hospitals to modify the patient's chemotherapy regimen, which is a combination therapy of pazopanib, gemcitabine, and dacarbazine, with a treatment period of three weeks. The patient experienced decreasing in platelet counts (grade III) in both the first two cycles of receiving the above protocol. After receiving targeted treatment, the patient's platelet indicators tended to improve, and chest and abdominal CT showed that the patient's condition was in a stable stage. However, during the interval after the third cycle, the patient suddenly experienced a decrease in platelet count ($37 \times 10^9/L$), accompanied by severe cough and fever (Figure 3). In order to further evaluate whether the patient's condition has progressed or worsened, we conducted another chest CT examination of the patient, and the results showed that lung infection was not excluded, as was cancerous lymphangitis. So, we gave the patient antibiotic treatment for three days, and the condition continued to worsen, accompanied by severe chills and high fever.

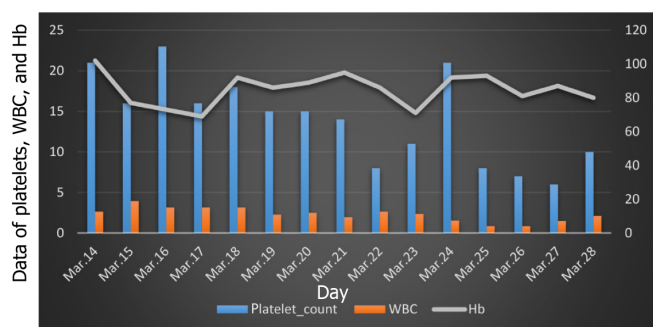
Personal and family history

For this reason, we have increased the types of antibiotics used, including meropenem, moxifloxacin, vancomycin, caspofungin, cefoperazone sodium, sulbactam sodium, oseltamivir, and minocycline, but the patient's fever symptoms have not improved. So, blood culture continued, and the results showed that no microorganisms with suspected backgrounds such as fungi, bacteria, DNA/RNA viruses, parasites, mycoplasma tuberculosis complex, chlamydia, rickettsia, *etc.* were found. In addition, abdominal ultrasound indicates normal spleen size. For this reason, we performed platelet perfusion therapy on the patient, followed by two courses of platelet infusion. The results of bone marrow



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Figure 2 Presentation of imaging magnetic resonance imaging. A: T1WI displays low intensity mixed signals with unclear boundaries; B: T2WI shows slightly high signal intensity in the liposuction sequence, with focal high signal intensity visible internally.



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Figure 3 Dynamic changes in blood count during chemotherapy for patients. WBC: White blood cell count; Hb: Hemoglobin.

puncture showed hypoplastic bone marrow. In addition, the patient's antinuclear antibodies and antiplatelet surface related antibodies were all negative.

Physical examination

Continuing to review the patient's abdominal ultrasound report, it is indicated that the spleen is approximately 200 mm (length) and 63 mm (thickness), with an increase in spleen volume. Another bone marrow biopsy was performed, along with natural killer (NK) cell and CD25 testing.

Laboratory examinations

At this time, clinical suspicion was highly suspected of hemophilia syndrome. The bone marrow biopsy report for the patient again indicates that NK cell activity is reduced; SIL-2R/sCD25 soluble interleukin-2 receptor > 75000 U/mL, bone marrow biopsy showed that bone marrow fibrosis with bone marrow necrosis, tumor necrosis cannot be ruled out.

Imaging examinations

In addition, we found in the results of bone marrow puncture reports that bone marrow hyperplasia is active, the proportion of granulocytes is reduced, and toxic changes are visible in neutrophils, which meets the diagnostic criteria for hemophilia syndrome. In view of this, we gave the patient dexamethasone intravenous therapy, but the patient's condition did not improve and continued to worsen. She was declared dead at 5 am on March 28, 2022 (Figure 4).

FINAL DIAGNOSIS

Malignant peripheral nerve sheath tumor of the broad ligament of the uterus.

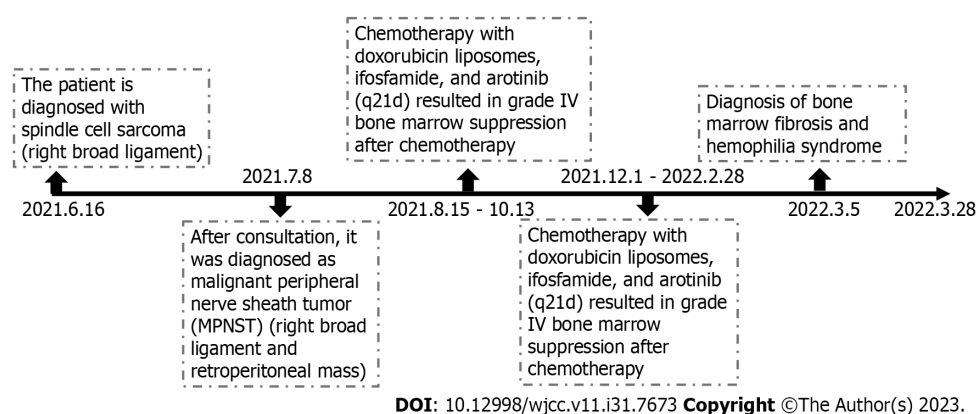


Figure 4 Timeline from diagnosis of malignant peripheral nerve sheath tumor and treatment to death. This figure shows the progression schedule of patients who only use combination chemotherapy and change chemotherapy drugs. After the combination therapy, the patient died due to complications such as hemophilia syndrome and bone marrow fibrosis.

TREATMENT

Combined treatment with pazopanib, gemcitabine, and dacarbazine was initiated.

OUTCOME AND FOLLOW-UP

Unfortunately, the patient succumbed to death at hospital after two weeks.

DISCUSSION

Throughout previous studies, it has been shown that retroperitoneal schwannomas account for only 0.7% of retroperitoneal tumors, while pelvic retroperitoneal schwannomas are even rarer[16-18]. Because the most common cystic lesions in the female pelvic cavity are still cysts or tumors originating from the ovaries, including cystadenoma, cystadenocarcinoma, teratoma, *etc.*, The malignant peripheral nerve sheath tumor (MPNST) are extremely prone to misdiagnosis as gynecological diseases[19,20]. Therefore, for gynecological examinations of adnexal masses closely adjacent to the pelvic wall, attention should be paid to distinguishing them from retroperitoneal tumors. In view of this, our inspiration is that for retroperitoneal tumors, CT and MRI are easy to detect, but when the tumor is large, it is difficult to determine the source of the tumor[11,21]. In addition, combined with conventional MRI scans, poor ovarian structure is the main reason for misdiagnosis. The qualitative analysis of pelvic masses depends on determining the source of the mass, and enhanced MRI scanning can improve the diagnostic rate. Fortunately, laparoscopic examination can further clarify the source of the tumor. In this case, after laparoscopic examination, the tumor was identified under laparoscopy and then converted to open surgery to remove the tumor[22]. Therefore, for female pelvic masses, the possibility of gynecological diseases should not be solely considered, especially those that are close to the pelvic wall. It is also important to be vigilant for retroperitoneal tumors. After enhanced scanning, the tumor significantly strengthens, which is different from ovarian tumors invading the pelvic wall, we should think of the possibility of schwannoma. If necessary, further diagnosis can be made under laparoscopy before surgical resection.

Previous studies have shown that chemotherapy is ineffective in improving the prognosis of MPNST, and some scholars have used chemotherapy drugs such as doxorubicin combined with cyclophosphamide to have good effects on individual cases[23-25]. In addition, there is controversy over the efficacy of radiotherapy for MPNST. Some scholars believe that radiotherapy has no significant effect on improving prognosis, while others believe that postoperative radiotherapy, brachytherapy, and intraoperative radioactive particle implantation have significant effects on controlling local recurrence and improving prognosis[25-27]. Considering the low resection rate of MPNST surgery and the uncertain effectiveness of adjuvant treatments such as radiotherapy and chemotherapy. In our case, we used a combination therapy of pazopanib, gemcitabine, and dacarbazine for three weeks to control the tumor in a stable phase without progression. However, the increased complications caused by postoperative adjuvant therapy cannot be ignored, especially in the case of hemophilia syndrome and bone marrow fibrosis, which is particularly challenging in MPNST treatment. Although the specific mechanism is not yet clear, we infer three possible explanations for the patient's death. First, the hemophilic syndrome may be related to the dysfunction of T and NK cell regulation, leading to excessive activation of macrophages and lymphocytes, leading to a significant increase in cytokines in the blood and the occurrence of systemic inflammatory response syndrome. The results of the patient's two bone marrow punctures indicate a lack of specificity in the early stages of the disease. Therefore, in the event of fever, rash, decreased blood cells in the second or third line, liver injury, or neurological manifestations that render anti-infection treatment ineffective, hemophilic syndrome should not be ruled

out, and multiple bone marrow punctures should be performed to assist in the diagnosis. Looking back at the patient's medical history, except for high sensitivity constitution, hypertension, and myocardial ischemia, there is no other previous medical history. During the hospitalization diagnosis and treatment process, the possibility of viral, bacterial infection, autoimmune, or malignant tumor diseases has been ruled out. However, the patient complained of cough on the first visit, and the history of upper respiratory tract infection cannot be ruled out. High sensitivity constitution can highly suspect certain defects of the patient's immune regulatory function, but the cause cannot be determined and there is no evidence of primary disease. This makes treatment difficult and only symptomatic, but it is important to be vigilant that if the cause cannot be removed, the condition is prone to recurrence and the prognosis is extremely poor. Second, the secondary bone marrow fibrosis refers to the proliferation of bone marrow fibrous tissue and abnormal hematopoietic function on the basis of a clear primary disease, which can be seen in various malignant diseases in clinical practice, such as chronic myeloproliferative diseases, acute and chronic leukemia, multiple myeloma, and metastatic cancer. We can speculate that the patient already has metastatic tumor lesions, which is extremely prone to secondary bone marrow fibrosis during subsequent treatment. Given this, the treatment options for MPNST patients with combined hemophilic syndrome and bone marrow fibrosis are limited, and the survival is very poor.

CONCLUSION

To our knowledge, this is the first report of a MPNST of the broad ligament of the uterus with hemophilic syndrome and bone marrow fibrosis. The patient experienced progression during combined treatment. The combination of pazopanib, gemcitabine, and dacarbazine could provide a potential treatment for these patients. However, the tolerance and safety of combination therapy deserved our attention.

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Co-first authors: Hui Li and Li Wang.

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REFERENCES

- 1 Stone JJ, Boland JM, Spinner RJ. Analysis of Peripheral Nerve Schwannoma Pseudocapsule. *World Neurosurg* 2018; **119**: e986-e990 [PMID: 30114537 DOI: 10.1016/j.wneu.2018.08.022]
- 2 Yuan Y, Gao J, Xiong G, Guo L. Diagnostic accuracy of multiparametric ultrasound for peripheral nerve schwannoma. *Acta Radiol* 2023; **64**: 1608-1614 [PMID: 36071627 DOI: 10.1177/02841851221125109]
- 3 Pekmezci M, Reuss DE, Hirbe AC, Dahiya S, Gutmann DH, von Deimling A, Horvai AE, Perry A. Morphologic and immunohistochemical features of malignant peripheral nerve sheath tumors and cellular schwannomas. *Mod Pathol* 2015; **28**: 187-200 [PMID: 25189642 DOI: 10.1038/modpathol.2014.109]
- 4 Thway K, Fisher C. Malignant peripheral nerve sheath tumor: pathology and genetics. *Ann Diagn Pathol* 2014; **18**: 109-116 [PMID: 24418643 DOI: 10.1016/j.anndiagpath.2013.10.007]
- 5 Rawal G, Zaheer S, Ahluwalia C, Dhawan I. Malignant peripheral nerve sheath tumor of the transverse colon with peritoneal metastasis: a case report. *J Med Case Rep* 2019; **13**: 15 [PMID: 30654838 DOI: 10.1186/s13256-018-1896-4]
- 6 Jones KE, Patel A, Kunesh MG, Thuro BA. Malignant peripheral nerve sheath tumor of the orbit: a case report and review of the literature. *Orbit* 2022; **41**: 642-646 [PMID: 33926355 DOI: 10.1080/01676830.2021.1918178]
- 7 Zaheer S, Khosla D, Gupta V, Nada R, Kumar D, Kapoor R. Malignant Peripheral Nerve Sheath Tumor Arising from Small Bowel Mesentery: an Extremely Rare Case with Review of Literature. *J Gastrointest Cancer* 2023; **54**: 259-263 [PMID: 34796455 DOI: 10.1007/s12029-021-00753-4]
- 8 Petracco G, Patriarca C, Spasciani R, Parafioriti A. Malignant peripheral nerve sheath tumor of the bladder A case report. *Pathologica* 2019; **111**: 365-368 [PMID: 31965114 DOI: 10.32074/1591-951X-33-19]
- 9 Zhang T, Wang Z, Wang R, Wu X, Zhao M, Su F. Malignant Peripheral Nerve Sheath Tumor of the Cervix. *J Coll Physicians Surg Pak* 2022; **32**: S24-S27 [PMID: 35633002 DOI: 10.29271/jcpsp.2022.Supp1.S24]
- 10 Wang P, Chen C, Xin X, Liu B, Li W, Yin D, Mu W. Giant intrapelvic malignant peripheral nerve sheath tumor mimicking disc herniation: A case report. *Mol Clin Oncol* 2016; **5**: 653-656 [PMID: 27900106 DOI: 10.3892/mco.2016.1030]
- 11 Kragha KO. Malignant Peripheral Nerve Sheath Tumor: MRI and CT Findings. *Case Rep Radiol* 2015; **2015**: 241259 [PMID: 26634167 DOI: 10.1155/2015/241259]
- 12 Sengar Hajari AR, Tilve AG, Kulkarni JN, Bharat R. Malignant peripheral nerve sheath tumor of the uterine corpus presenting as a huge abdominal neoplasm. *J Cancer Res Ther* 2015; **11**: 1023 [PMID: 26881581 DOI: 10.4103/0973-1482.147694]
- 13 Mills AM, Karamchandani JR, Vogel H, Longacre TA. Endocervical fibroblastic malignant peripheral nerve sheath tumor (neurofibrosarcoma): report of a novel entity possibly related to endocervical CD34 fibrocytes. *Am J Surg Pathol* 2011; **35**: 404-412 [PMID: 21317712 DOI: 10.1097/PAS.0b013e318208f72e]
- 14 Lambrou NC, Mirhashemi R, Wolfson A, Thesiger P, Penalver M. Malignant peripheral nerve sheath tumor of the vulva: a multimodal treatment approach. *Gynecol Oncol* 2002; **85**: 365-371 [PMID: 11972402 DOI: 10.1006/gyno.2002.6600]
- 15 Lallas TA, Mehaffey PC, Lager DJ, Van Voorhis BJ, Sorosky JI. Malignant cervical schwannoma: An unusual pelvic tumor. *Gynecol Oncol* 1999; **72**: 238-242 [PMID: 10021307 DOI: 10.1006/gyno.1998.5234]
- 16 Improtta L, Tzanis D, Bouhadiba T, Abdelhafidh K, Bonvalot S. Overview of primary adult retroperitoneal tumours. *Eur J Surg Oncol* 2020; **46**: 1573-1579 [PMID: 32600897 DOI: 10.1016/j.ejso.2020.04.054]
- 17 Mastoraki A, Toska F, Tsiverdis I, Kyriazi M, Tsagkas A, Danias N, Smyrniotis V, Arkadopoulos N. Retroperitoneal schwannomas: dilemmas in diagnostic approach and therapeutic management. *J Gastrointest Cancer* 2013; **44**: 371-374 [PMID: 23749630 DOI: 10.1007/s12029-013-9510-x]
- 18 Xiao J, Cai L, Pu J, Liu W, Jia C, He X. Clinical characteristics and prognosis of cystic degeneration in retroperitoneal schwannoma: A retrospective study of 79 patients. *Cancer Med* 2023; **12**: 5615-5629 [PMID: 36440500 DOI: 10.1002/cam4.5411]
- 19 Le Guellec S, Decouvelaere AV, Filleron T, Valo I, Charon-Barra C, Robin YM, Terrier P, Chevreau C, Coindre JM. Malignant Peripheral Nerve Sheath Tumor Is a Challenging Diagnosis: A Systematic Pathology Review, Immunohistochemistry, and Molecular Analysis in 160 Patients From the French Sarcoma Group Database. *Am J Surg Pathol* 2016; **40**: 896-908 [PMID: 27158754 DOI: 10.1097/PAS.0000000000000655]
- 20 Linos K, Warren S. A misdiagnosed melanoma: a case of cutaneous epithelioid malignant peripheral nerve sheath tumor. *Dermatol Online J* 2015; **21** [PMID: 25933073]
- 21 Yu YH, Wu JT, Ye J, Chen MX. Radiological findings of malignant peripheral nerve sheath tumor: reports of six cases and review of literature. *World J Surg Oncol* 2016; **14**: 142 [PMID: 27159980 DOI: 10.1186/s12957-016-0899-0]
- 22 Lim S, Lee KB, Chon SJ, Park CY. Is tumor size the limiting factor in a laparoscopic management for large ovarian cysts? *Arch Gynecol Obstet* 2012; **286**: 1227-1232 [PMID: 22791381 DOI: 10.1007/s00404-012-2445-9]
- 23 Moretti VM, Crawford EA, Staddon AP, Lackman RD, Ogilvie CM. Early outcomes for malignant peripheral nerve sheath tumor treated with chemotherapy. *Am J Clin Oncol* 2011; **34**: 417-421 [PMID: 20838322 DOI: 10.1097/COC.0b013e3181e9c08a]
- 24 Madhankumar AB, Mrowczynski OD, Slagle-Webb B, Ravi V, Bourcier AJ, Payne R, Harbaugh KS, Rizk E, Connor JR. Tumor targeted delivery of doxorubicin in malignant peripheral nerve sheath tumors. *PLoS One* 2018; **13**: e0181529 [PMID: 29304038 DOI: 10.1371/journal.pone.0181529]
- 25 Wang Y, Katagiri H, Murata H, Wasa J, Miyagi M, Kakuda Y, Takahashi M. Metastatic Malignant Peripheral Nerve Sheath Tumor With NF1 Successfully Treated With 'Gradual Subtraction' ICE Chemotherapy. *Anticancer Res* 2020; **40**: 1619-1624 [PMID: 32132065 DOI: 10.21873/anticancer.14110]
- 26 Dodd RD, Lee CL, Overton T, Huang W, Eward WC, Luo L, Ma Y, Ingram DR, Torres KE, Cardona DM, Lazar AJ, Kirsch DG. NF1(+/-) Hematopoietic Cells Accelerate Malignant Peripheral Nerve Sheath Tumor Development without Altering Chemotherapy Response. *Cancer Res* 2017; **77**: 4486-4497 [PMID: 28646022 DOI: 10.1158/0008-5472.CAN-16-2643]
- 27 Millesi E, Rechberger JS, Wang H, Mardini S, Spinner RJ, Daniels DJ. Advancements in therapeutic approaches for malignant peripheral nerve sheath tumor. *Ther Deliv* 2023; **14**: 385-389 [PMID: 37464750 DOI: 10.4155/tde-2023-0014]



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