Indian Journal of Fundamental and Applied Life Sciences ISSN: 2231– 6345 (Online)
An Open Access, Online International Journal Available at www.cibtech.org/sp.ed/jls/2015/02/jls.htm
2015 Vol. 5 (S2), pp. 324-326/Bazrafshan et al.
Case Report

CASE REPORT OF RHABDOMYOSARCOMA OF UTERINE CERVIX IN A 16 YEAR OLD GIRL

Behnaz Bazrafshan[1], Abdolreza Fazel[2], Mohammad Reza Hashempour[2] and *Akram Sanagoo[3]
[1]Medical Cellular and Molecular Research Center,
Golestan University of Medical Sciences, Gorgan, Iran
[2]Department of Surgery, Golestan University of Medical Sciences, Azar Hospital, Gorgan, Iran
[3]Department of Nursing, Nursing Research Center,
Golestan University of Medical Sciences, Gorgan, Iran
**Author for Correspondence*

ABSTRACT
Rhabdomyosarcoma (RMS) is the soft tissue tumor derived from (formed from) embryonic primary mesenchyme. Neck, head and genitourinary region are the common locations that are affected by this disease. This study reports a 16 years old girl presented with vaginal bleeding and irregular menstruation. Biopsy results showed rahbdomyosarcoma. 2 Ultrasounds and MRI were performed and revealed two solid mass in size of 50 x 80 in the lower uterine cervix. Then base on diagnosis of 15 course chemotherapies and abdominopelvic CT scan it is illustrated that the mass puts pressure on the rectum and bladder. Therefore considering lack of adequate clinical response she underwent a total hysterectomy.

Keywords: *Cancer, Rhabdomyosarcoma, Hysterectomy*

INTRODUCTION
Rhabdomyosarcoma (RMS) is the soft tissue tumor derived from embryonic primary mesenchyme. While embryonic rhabdomyosarcoma is the most common subtype, the uterine rhabdomyosarcoma is rare (Bernal *et al.,* 2004). The uterine sarcoma is considered as a rare tumor (0.64 cases per 100000 women), with approximately a total malignancy of 6% (Brand *et al.,* 1987). There have been 60 reported cases (Daya and Scully, 1988).

Women in middle ages have higher incidence rates, showing vaginal painful bleeding, hypogastrial pains and larger uterine sizes in physical examinations (Kaserer *et al.,* 1995). A 16 years old girl from north of Golestan province referred to 5 Azar Hospital in Gorgan. The patient has suffered from the pain in hypogastria area from 3 years ago and since last year she had acute vaginal bleeding and after a while a mass had been created in vaginal area.

The red color mass was small and painful while being touched or walking. The mass was little injured and bleeding.

The pain was along with stings and did not spread into the pelvis and legs. The patient was admitted to a hospital in Mashhad and undergone a surgery, mass were taken and sent to pathobiology. Finally, uterine rhabdomyosarcoma was reported. The patient had no history of certain diseases such as asthma, diabetes, hepatitis, HIV and IHD.

Patient‘s mother and sister had no problem in their menstruation.

The patient disclaimed that she had severe vaginal bleeding for 2 days, and the bleeding was more than a menstrual, and was associated with clots, when admitted to the hospital. 2 Ultrasounds and MRI was performed and revealed two solid mass in size of 50 x 80 in the lower uterine cervix. CT spinal showed that the mass has pressure on the rectum and bladder. Then she underwent a total hysterectomy (Figure 1) she was also given 15courses chemotherapy.

Case Report

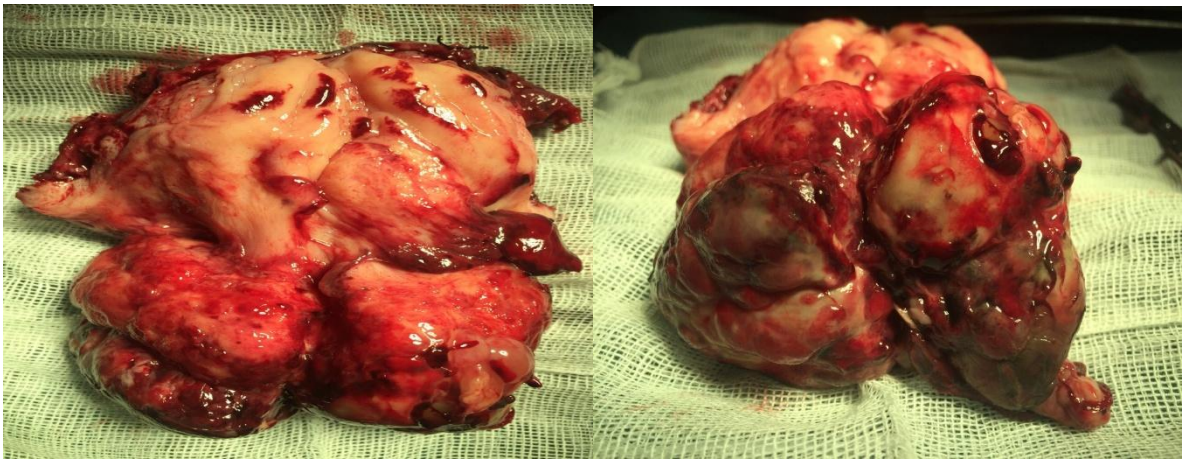

Figure 1: Total Hysterectomy of 16 years old

DISCUSSION

Rhabdomyosarcoma can occur in any part of the body but the most common parts are the head and neck (35%) (Miyamoto *et al.,* 2004). Another involved part is the abdomen in genitourinary system (Clement, 1990). Most of rhabdomyosarcomata originated from genital system of women are of embryonic and botryoidal type (Cohen *et al.,* 1981; Copeland *et al.,* 1985; DiSaia and Pecorelli, 1994). Botryoidal sarcoma is a type of embryonic rhabdomyosarcoma containing spindle-like cells with polypoid grape shaped masses grown in the submucosa area (Gaiger *et al.,* 1981). Although the cervical rhabdomyosarcoma usually manifests in the second decade of the life, it also has been reported at the higher ages (Gordon and Montag, 1990).

Embryonic rhabdomyosarcoma of women's genital systems occurs in their childhood period, showing rare reports in adults. Explaining the rhabdomyosarcoma appearances in their sites, primary mesenchymal cells have been found to be the stem cells of a wide range of the soft tissue neoplasm (Daya and Scully, 1988). Rhabdomyosarcoma must be distinguished from adenosarcoma and botryoidal pseudosarcoma (false sarcoma).

Adenosarcoma may be found in young women, exhibiting steromal cell concentration beneath the surface epithelium and surrounding the nodes similar to the cambium layer of botryoidal sarcoma. Adenosarcoma doesn't form grape clusters because the stroma is more fibrous, showing no swellings of the cluster sarcoma.

Adenosarcoma also exhibits a foliate pattern, characterized by several epithelial linear cysts and slit-like turns similar to the chest cytosarcoma (Harlow *et al.,* 1986). In contrast, the present cluster intrasarcomic nodes have central position, resulted from trapping of surface epithelium. The cluster pseudosarcoma (false sarcoma) (polyp swelling of mesodermal cervix) is similar to the cluster sarcoma but usually occurs in polyps. In adult women, they are observed as small, soft fleshy protuberances with diameters of 1.5 cm. Cambium layer is not similar to the rhabdomyosarcoma; it shows higher consistency than the sarcom within mesodermal polyps (Jones and Lefkowitz, 1995; Lioyd *et al.,* 1983).

Bernal and coworkers reported the embryonic rhabdomyosarcoma in a 19 years old woman with cervical polyp (Norris and Taylor, 1966). Brand and colleagues examined 21 cases of cervical cluster sarcoma (including four unreported cases) (Pappo *et al.,* 1995). Patients' ages were classified in the range of 5 months-48 years, with a peak incidence in the age group of 14 to 18 years. Over two past decades, the perspective for patients -especially adults-has been improved due to the certain chemotherapy (Perrone *et al.,* 1990). Kaserer and colleagues reported the cervical embryonic rhabdomyosarcoma in IRS, Ia stage in a 32 years old woman. After removal surgery and chemotherapy, the patient was free for 7 months in reported period. Miyamoto and coworkers reported embryonic cervical rhabdomyosarcoma found in a 46 years old woman (Podczaski *et al.,* 1990). According to Miyamoto, only four cases of cluster cervical sarcoma have been reported in detail in a patient above 40 years (Rayman, 1987).

Conclusion

Awareness of this rare unusual lesion in this age, its location and its clinical value are crucial to avoid misdiagnosis.

ACKNOWLEDGMENT

We thanks to all attend and nurse in surgery department of 5 Azar Hospital and Golestan university of medical sciences.

REFERENCES

Bernal KL, Fahmy L, Remmenga S, Bridge J and Baker J *et al.*, (2004). Embryonal rhabdomyosarcoma (sarcoma botryoides) of the cervix presenting as a cervical polyp treated with fertility-sparing surgery and adjuvant chemotherapy. *Gynecologic Oncology* **95**(1) 243-6.

Brand E, Berek JS, Nieberg RK and Hacker NF *et al.*, (1987). Rhabdomyosarcoma of the uterine cervix. Sarcoma botryoides. *Cancer* **60**(7) 1552-60.

Daya DA and Scully RE (1988). Sarcoma botryoides of the uterine cervix in young women: a clinicopathological study of 13 cases. *Gynecologic Oncology* **29**(3) 290-304.

Kaserer K, Kainz C, Reinthaller A, Amann G, Beer F and Breitenecker G *et al.*, (1995). Sarcoma botryoides (embryonal rhabdomyosarcoma) as an unusual diagnosis of cervix polyps. *Pathology* **16**(4) 287-91.

Miyamoto T, Shiozawa T, Nakamura T and Konishi I *et al.*, (2004). Sarcoma botryoides of the uterine cervix in a 46-yearold woman: case report and literature review. *International Journal of Gynecological Pathology* **23**(1) 78-82.

Clement PB (1990). Miscellaneous primary tumour and metastatic tumour of the uterine cervix. *Seminars in Diagnostic Pathology* **7** 228-48.

Cohen M, Smith WL, Weetman R and Provisor A (1981). Pulmonary pseudometastases in children with mslignant tumors. *Radiology* **141** 371.

Copeland LJ, Sneige N, Stringer A, Gershenson DM, Saul PB and Kavanagh JJ (1985). Alveolar rhabdomyosarcoma of the female genitalia. *Cancer* **56** 849-55.

DiSaia PJ and Pecorelli S (1994). Gynecological sarcomas. *Seminars in Surgical Oncology* **10**(5) 369-73.

Gaiger AM, Soule EM, Newton WA (1981). Pathology of rhabdomyosarcoma: experience of the Intergroup Rhbdomyosarcoma Study, 1972-78. *National Cancer Institute of Monograph* **56** 19-27.

Gordon AN and Montag TW (1990). Sarcoma botyroides of the cervix. Excision followed by adjuvant chemotherapy for preservation of reproductive function. *Gynecologic Oncology* **36** 119-24.

Harlow BL, Weiss NS and Lofton S (1986). The epidemiology of sarcomas of the uterus. *Journal of National Cancer Institute of Monograph* **76**(3) 399-402.

Jones MW and Lefkowitz M (1995). Adenosarcoma of the uterine cervix. A clinicopathological study of 12 cases. *International Journal of Gynecological Pathology* **14**(3) 223-9.

Lioyd RV, Hajdu SI and Snapper WH (1983). Embryonal rhabdomyosarcoma in adults. *Cancer* **51** 557-565.

Norris HJ and Taylor HB (1966). Polyps of vagina. A benign lesion resembling sarcoma botryoides. *Cancer* **19** 227-32.

Pappo AS, Shapiro DN and Crist WM (1995). Biology and therapy of pediatric rhabdomyosarcoma. *Journal of Clinical Oncology* **13** 223.

Perrone T, Carson LF and Dehner LP (1990). Rhabdomyosarcoma with heterologous cartilage of the uterine cervix: a clinicopathologic and immunohistochemical study of an aggressive neoplasm in a young female. *Medical and Pediatric Oncology* **18** 72-6.

Podczaski E, Sees J, Kaminski P, Sorosky J, Larson JE, DeGeest K, Zaino RJ and Mortel R (1990). Rhabdomyosarcoma of the uterus in a postmenopausal patient. *Gynecologic Oncology* **37**(3) 439-42.

Rayman FB (1987). Rhabdomyosarcoma in children and adolescents. *Hematology/Oncology Clinics of North America* **1** 621-34.