

# Angiomyofibroblastoma of the Vaginal Portion

Jasenko Fatusic<sup>1</sup>, Igor Hudic<sup>1</sup>, Zlatan Fatusic<sup>1</sup>, Jasminka Mustedanagic-Mujanovic<sup>2</sup>

Clinic for Gynaecology and Obstetrics, University Clinical Center Tuzla, Bosnia and Herzegovina<sup>1</sup>

Department of pathology, University Clinical Center Tuzla, Bosnia and Herzegovina<sup>2</sup>

**Corresponding author:** Igor Hudic, MD, PhD. Clinic for Ob/Gyn. University Clinical Center Tuzla. Trnovac bb, Tuzla, Bosnia and Herzegovina. E mail: i.hudic@bih.net.ba

## ABSTRACT

**Introduction:** Angiomyofibroblastoma is a tumor which consists of two components: blood vessels and stromal cells, with always prominent vascular component. Angiomyofibroblastoma is benign tumor, but in literature is reported a case of recurrence and one case with sarcomatous transformation, which showed that these tumors may rarely be associated with malignant component. **Case report:** A 78-year-old multiparous housewife was hospitalized at University Clinical Center because of painless, asymptomatic tumor of vaginal portion (posterior side). Tumor size was 7 millimeters in diameter. Internal genital organs did not present abnormalities. The patient underwent operative removal of the tumor and went to home at some day. At the histological examination the tumor presented as an angiomyofibroblastoma cervicis uteri.

**Key words:** angiomyofibroblastoma, pathology, cervical tumor

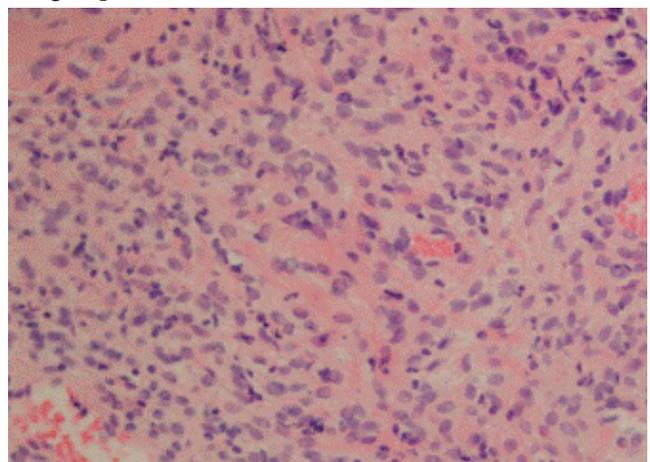
## 1. INTRODUCTION

Angiomyofibroblastoma is a tumor first described by Fletcher et al. in 1992 (1). Name “angiomyofibroblastoma” is based on the two components of the tumor: blood vessels and stromal cells, with always prominent vascular component. The histological findings of the tumor are abundant thin-walled blood vessels occasionally, estatic and branching, with hypocellular and hypercellular areas (2, 3). Fibroblastic differentiation of the stromal cells is evidenced by the well-developed Golgi apparatus and prominent rough endoplasmic reticulum. These lesions are well circumscribed but not encapsulated, with tan/pink cut surface and a soft consistency. Most cases measure less than 5 cm in maximum up to 14 cm (4, 5, 6). The mean age at presentation is 45 years. It is slow raising tumor with before seeking treatment about 29 months (7). Angiomyofibroblastoma is benign tumor, but in literature is reported one case of recurrence (8), and one case with sarcomatous transformation, which showed that these tumors may rarely be associated with malignant component, and the designation “angiomyofibrosarcoma” may be appropriate in such cases (9).

## 2. CASE REPORT

A 78-year-old multiparous married housewife, who is married, were admitted to the hospital because of cervical tumor. Size of tumor was 7 millimeters in diameter. Medical history was no significant. Internal genital organs did not present abnormalities. Tumor were located at posterior side of vaginal portion. The patient underwent operative removal of the tumor and discharged home at some

day. The histological examination: polypoid tissue sample is covered by squamous epithelium. Immediately below epithelium hypocellular connective tissue with thin-walled blood vessels is present. In the deeper parts of tissue, uncapsulated, moderate cellular area consists of short, oval, spindle-shaped cells with bland, oval normochromatic nuclei, inconspicuous nucleoli. The cells form discrete, short fascicle clustered about the blood vessels. Thin-walled blood vessels are dilated and filled red blood cells. Few inflammatory cells, mainly lymphocytes are present in some microscopic field. Immunohistochemical analysis showed that tumor cells are positive for vimentin, desmin and negative for small muscle actin, myogenin and p53 antigen. The proliferation index, expressed as a percentage of Ki-67 antigen-positive nuclei, is less than 1%.



**Figure 1.** Bland tumor cell clustered about blood vessels (HE20x)

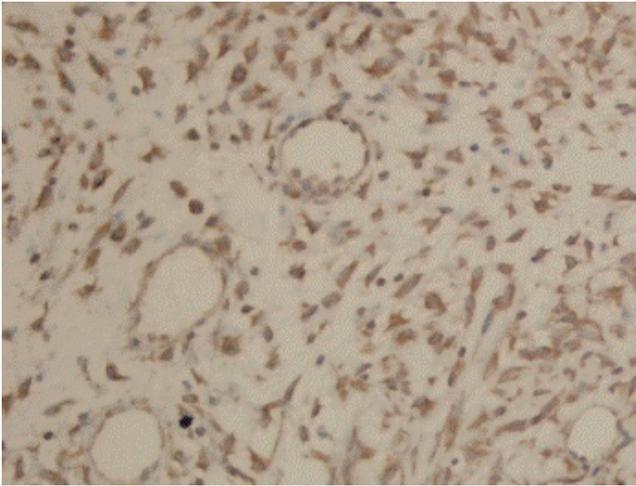


Figure 2. Immunohistochemistry stain, vimentin positive (20x)

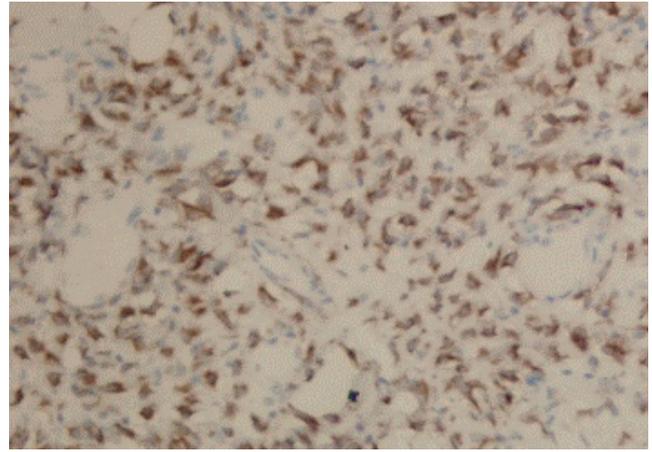


Figure 3. Immunohistochemistry stain, desmin positive (20x)

### 3. DISCUSSION

Clinically, angiomyofibroblastoma typically involves the vulvar soft tissue of young to middle aged females, that ranges from 25 to 54 years with mean age of mean 36 years (1). Around 10% of patients are postmenopausal (4). Convincing examples have not been described before puberty. Tumor typically presents as a small, a slowly enlarging, painless, well circumscribed vulvar mass that usually has its epicenter in labia maiora. Differential diagnose is carried out against fibroepithelial stromal polyps, cellular angiofibroma, aggressive angiofibroma, myofibroblastoma, leiomyomatosis, and smooth muscle tumors (6). The most frequent preoperative diagnosis is Bartholin's gland cyst (3). In general, these tumors are reported to be benign, with no local recurrence or metastasis being described. Surgical treatment is sufficient.

**CONFLICT OF INTEREST: NONE DECLARED.**

### REFERENCES

1. Fletcher CD, Tsang WY, Fisher C, Lee KC, Chan JK. Angiomyofibroblastoma of the vulva: a benign neoplasm distinct from aggressive angiofibroma. *Am J Surg Pathol.* 1992; 6: 378-382.
2. Seo JW, Lee KA, Yoon NR, Lee JW, Kim BG, Bae DS. Angiomyofibroblastoma of the vulva. *Obstet Gynecol Sci.* 2013; 56(5): 349-351.
3. Nielsen GP, Rosenberg AE, Young RH, Dickersin GR, Clement PB, Scully RE. Angiomyofibroblastoma of the vulva and vagina. *Mod Pathol.* 1996; 9(3): 284-291.
4. Laskin WB, Fetsch JF, Mostofi FK. Angiomyofibroblastoma-like tumor of the male genital tract: analysis of 11 cases with comparison of female angiomyofibroblastoma and spindle cell lipoma. *Am J Surg Pathol.* 1998; 22: 6-16.
5. Nucci MR, Fletcher CD. Vulvovaginal soft tissue tumors: update and review. *Histopathology.* 2000; 36(2): 97-108.
6. Omori M, Toyoda H, Hirai T, Ogino T, Okada S. Angiomyofibroblastoma of the vulva: a large pedunculated mass formation. *Acta Med Okayama.* 2006; 60(4): 237-242.
7. Sims SM, Stinson K, McLean FW, Davis JD, Wilkinson EJ. Angiomyofibroblastoma of the vulva: a case report of a pedunculated variant and review of the literature. *J Low Genit tract Dis.* 2012; 16(2): 149-154.
8. Saleh MM, Yassin AH, Zaklama MS. Recurrent angiomyofibroblastoma of the vulva: a case report. *Eur J Gynaecol Oncol.* 2007; 28(4): 324.
9. Nielsen GP, Young RH, Dickersin GR, Rosenberg AE. Angiomyofibroblastoma of the vulva with sarcomatous transformation ("Angiomyofibrosarcoma"). *Am J Surg Pathol.* 1997; 21(9): 1104-1108.