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Prikaz slučaja / Case report

FIBROMA - POSSIBLE NAME OF SOFT TISSUE TUMOR OF VAGINAL PORTION OF UTERINE CERVIX?

FIBROM – MOGUĆE IME ZA TUMOR MEKIH TKIVA VAGINALNE PORCIJE GRLIĆA MATERICA?

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Key words

polip, soft tissue tumour, uterine cervix

Ključne reči

polip, mekotkivni tumori, grlić materice

Abstract

Introduction: In paper shovn benigne soft tissue tumor of uterine cervix, along with consideration of doubts in differential diagnosis regarding current classification of soft tissue tumors. **Case report:**This case is presenting benigne fibroblastic/myofibroblastic type soft tissue tumors of vaginal portion of uteri into a 62-year-old, postmenopausal women. **Conclusion:** Soft tissue or mesenchymal tumours into the female genital tract especially into uterine crevix are rare. Usually benign soft tissue tumors in this site are hemanagiomas or lymphangiomas and leiomyoma. The biggest dilemma regarding the presented case was naming this entity of the cervix in regards to current WHO classification of soft tissue tumors. Spectrum of possible differential diagnoses considered in a case of soft tissue tumors includes all types of tumors in fibroblastic/myofibroblastic tumors. Main dilemma in preseted case were, can we get name fibroma to benigne soft tissue tumor.

INTRODUCTION

Soft tissue tumors are big group of tumors which can grow in all organs containing connective tissue/soft tissue [1-3]. Soft or mesenchymal tumors are rarely encouteded in female genital system, especially in uterine cervix[1-3]. Usually benign soft tissue tumors in this site are hemanagiomas or lymphangiomas and leiomyoma[2-4]. This case is presenting benigne soft tissue tumor of uterine cervix, along with consideration of doubts in differential diagnosis regarding current classification of soft tissue tumors.

CASE REPORT

A 62-year-old, postmenopausal women with no recent medical history and symptoms and any date about trauma. During a routine examination gynecologist described on ("11h") the vaginal portion of the cervix polypoid formation, 4mm in diameter and after that provide a biopsy. Whole material, in one fragments, was forwarded to the pathology and processed by routine methodes: fixed in 10% formalin, cut to a thickness of 5 micrometers and stained with HE method, and then histopathological analysis was done.

Microscopic examination revealed a polyp-like, unencapsulated nodule in lamina propria of mucosa. Nodule was well circumscribed, hypocellular lesion with spindle cells like fibroblasts and fibrocytes, without mitotic activity and necrosis, and mostly composed of acellular collagen fibers. Tumor tissue also contained small blood vessels. The overlying epithelium was stratified squamous epithelium without keratinisation, with a few layers and histologically is appropriate as a epithelium of vaginal portion of uterine cervix (in support of the claim is the histological composition of the lamina propria) (Fig.1). Unfortunately, the polyp formation was removed without the endocervical epithelium suchlike would be a sure sign of histological localization. Between the lesion and epithelium, situated the loose connective tissue with inflammatory cells.

In second step histochemical staining with Gomory, Mallory and Masson methods was done. By Gomory method cells and stroma was negative. Spindle cells and sur-

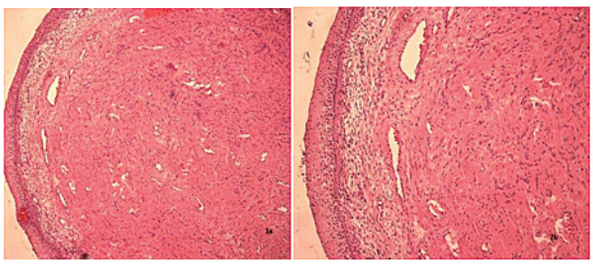

Fig 1. Fibroma of the cervical vaginal portion (HE). 1a) Magnification with objective 5x. 1b) Magnification with objective 10x.

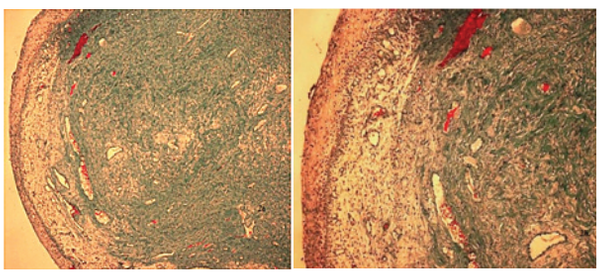

Fig 2. Fibroma of the cervical vaginal portion (Mallory). 2a) Magnification with objective 5x 2b)Magnification with objective 10x.

rounded connective fibers collared on green by Malory metod (Fig.2) and blue by Masson metod and illustrated the origin of the tumor tissue from fibroblast. Additionally performed immunohistochemically analyses and tumor cell was Ki67, CD34 and CD99 negative.

On the basis of clinical data (no data about the trauma), histological appearance and "vintage" histochemical look of the tumor cells, the diagnosis *Fibroma cervicis uteri* was done. The patient showed no reccurence after the biopsy.

DISSCUSION:

Soft tissue tumors are rare in the uterine cervix, where they constitute less than 1% of all malignancies[5]. The most common type of soft tissue tumor in female genital system is leiomyoma[2] and being presented in fewer than 1% of all tumors of female genital system[6]. Other primary cervical tumors and tumorlike conditions developed from soft tissue include: *traumatic (amputation) neuroma* (some occurring postpartum); *neurofibroma*; *schwannoma* (including the pigmented variety); *malignant peripheral nerve sheath tumor, solitar fibrous tumor*, *blue nevus, cellular blue nevus*, *benign mesenchymoma, hemangioma* [2,7], fibroepithelial stromal polyp (fibroepithelial polyp), angiomyofibroblastoma, cellular angiofibroma, type of vaginocervical myiofibroblastoma[2,8] and other.

The biggest dilemma regarding the presented case was naming this entity of the cervix besed on current classification of soft tissue tumors. Spectrum of possible differential diagnoses considered in a case of soft tissue tumors includes all types of tumors in fibroblastic/myofibroblastic tumors[2] or fibrous tumors[9].

Described nodular formation had no evidence of necrosis, haemorrhage, cellular pleomorphism or high mitotic count, which altogether indicate benign nature of the lesion. Therefore, all malignant and potentially aggressive types of soft tissue tumors were ruled out, and our focus was directed towards between benign soft tissue tumors.

Hipocellular tumor tissue was composed of spindle cells with hyperchromatic, elongated/spindle nuclei, so our further staining methods applied were directed towards differentiation of the origin of described tumor cells, whether those were proliferating fibroblasts/fibrocytes and/or muscle cells or cells of nervous tissue. Applied histochemical staining methods ruled out nervous (Gomori negative tumor cells) or muscle origin (no red colored cells and fibers on Malory and Masson methods) of the tumor cells, so our further differential considerations were directed to fibroblastic/fibrocytic proliferation.

In recent classifications given by the WHO, tumours derived from fibroblast/fibrocytes were grouped into the fibroblastic/myofibroblastic tumors. Most of these tumors are true neoplasms, but some of them are probably reactive proliferation [2,9].

Analyzing the type of growth, histological properties and histochemical profile (Mallory, Masson i Gomori) that indicated fibroblastic/fibrocytic proliferation and ruled out myofibroblastic proliferation, we faced the problem of naming the described entity. Concidering on the WHO classification of soft tissue tumors and histological properties of the tumor, should decide between three differential diagnoses: solitary fibrous tumor, fibroepithelial polyp, and fibroma.

Solitary fibrous tumour (SFT) is a rare mesenchymal neoplasm accounting for less than 2% of all soft-tissue tumours[10]. It may originate at a spectrum of anatomical locations such as the thoracic and abdominal cavities, retroperitoneum and the pelvis[10]. The course of SFT is predominantly benign however 10-15% of tumours may recur and present malignant behaviour[10]. SFTs very rarely arise in female reproductive organs and, to our knowledge, just above ten cases of SFTs were reported in the female reproductive system (vulva, vagina, para-vaginal space, uterus, paraovarian tissue, broad ligament, fallopian tube) and three of them in the uterine cervix[10,11]. Diagnosis of SFT was rejected in presented case, because the tumor cells had negativne immunoprofile on CD34 and CD99 and because have not "pericytoma-like" blood vessels.

If we exclude localization of nodul possible diagnosis as fibroepithelial polyp. Fibroepithelial polyps are benign tumors of mesodermal origin[2,12], also known as acrochordon, skin tag, soft fibroma, cutaneous papilloma, cutaneous tag, fibroma pendulum, fibroma molluscum[13]. The most common as a benign skin lesion of adults, but is can occcure in different localisation of body with in connected by the surrounded skin (uretra, anus, vagina)[12,13]. Diagnostic histological feature of fibroepithelial polyp is polypoid/papillomatous formation with edematous connective tissue stroma, containing blood vessels and reactive fibrocytes, whose surface is lined with acantotic and hypeplastic squamous epithelium. Above mentioned features were not observed in presented case.

Exclusion of all potential entities from the group of fibroblastic/myofibroblastic tumors, only remaining differential diagnosis was fibroma.

Term fibroma, in currently valid classifications of soft tissue tumors includes in: tendon sheath fibroma, "Nuchal type" fibroma, "Calcifyng aponeurotic fibroma" and Gartners fibroma[2]. None of the included entities is not

mentioned nor related to female genital system, particularly to uterine cervix[3].

The fibroma as a term and a diagnosis, in female genital system is commonly related to ovarian pathology, and is defined as: "Benign lesion characterized by a benign fibroblastic proliferation in the ovary and often adjacent to or continuous with ovarian stroma[3,14]. Microscopically, fibroma in the ovari composed of thin spindle cells in whorled arrangement, cells have bland nuclei and eosinophilic cytoplasm and variable amount of extracellular collagen[3,14]. In 10% of fibroma thera are hypercellular[9]. Since the term of fibroma is valid in ovarian pathology, the question arises whether or not we could apply it in any part of female genital system, or can we simply apply a rule that benign tumor of fibrocytic origin is a fibroma?

Taking into all differential diagnoses considered here, histological, histochemical and immunohistochemical features of tumor cells, we were certain of benign nature of the lesion (Ki67 negative) derived from the fibrocytes.

Additional immunohistochemical properties of tumor cells (CD34 and CD99 negativity), were crutial for seting the diagnosis of fibroma. At this point, a comment made by Fletcher in his textbook, in a chapter on soft tissue tumors should be kept in mind: "The diagnosis of "fibroma," if used in an unqualified manner, is meaningless and should be avoided, not least because it encourages diagnostic lassitude, but also because it has been used, mostly in the past, to describe almost every type of tumor in this chapter"[9].

CONCLUSION:

Soft tissue tumor of the uterine cervix is presented in this case report, along with thorough description of differential diagnoses taken into consideration and doubts regarding currently valid WHO classification.

Sažetak

Uvod: U radu je prikazan slučaj je benignog mekotkivnog tumora grlića materice uz razmatranje mogućih diferencijalnih dijagnoza u odnosu na važeću WHO klasifikaciju mekotkivnih tumora. **Prikaz slučaja:** Prikazan slučaj mekotkivnog fibroblastno/myofibroblastnig benignog tumora grlića materice kod 62-godišnje pacijentkinje. **Zaključak:** Mekotkivni ili mezenhilani tumori u ženskom genitalnom sistemu, posebno u grliću materice, su retki. Najčešći benigni tumori navedne lokalizacije su hemangiomi ili limfangiomi ili lejomiomi. Najveća dilema u prikazanom slučaju bila je kako dati ime promeni u odnosu na važeću WHO klasifikaciju mekotkivnih tumora. Spektar mogućih diferencijalnih dijagnoza u prikazanom slučaju obuhvatao bi sve moguće tipove tumora u grupi fibroblastno/ miofibroblastne proliferacije uz dilemu da li benignoj promeni možemo dati ime fibrom.

LITERATURE

1. Mills S.E, Carter D, Greenson J.K, Reuter V.E, Stoler M.H. Stenberg's diagnostic surgical pathology. 4th ed. Wolter Kluwer 2004.

2. Fletcher, C.D.M, Bridge, J.A, Hogendoorn, P, Mertens, F. WHO Classification of Tumours of soft tissue and bone. Volumen 5. IARC Press, Lyona, 2013.

3. Kurman R.J, Carcangiu M.L, Herington S, Yong R.H. WHO classification of tumours of Female reproductive Organ. 4th Ed· IARC Press, Lyon 2014.

4. Djolai M, Bošković T, Djurdjević S, Trivunić Dajko S, Andrejić Višnjić B, Rajović R. Hemangioma of uterine cervix associated with high-grade squamous intraepithelial lesion. Vojnosanit Preg 2015; 72(6): 541-544.

5. Do S.I, Kim G.Y, Ki K.D at al. Ganglioneurinoma of the uterine cervix – a case report. Human Pathology 2011; 42: 1573-1575.

6. Nucci M, Crum C.P. Neuroendocrine Carcinoma, Mixed Epithelial/Mesenchymal and Mesenchymal tumors, and miscelanous lesions of the uterine cervix. In: Diagnostic gynecologic and Obsteric Pathology. 2nd ed. Elsevere, 2011.

7. Lamps L, McKenny J, Mayers J. Rosai and Ackerman's Surgical Pathology. Elsvere, 2018:pp1283-1284.

8. Nucci M.R, Oliva E. Gynecologic pathology. Churchill Livingstone Elsevier 2009.

9. Fletcher C.D.M. Diagnostic histopathology of tumors. 4th Ed. Esavier Saundres, 2013.

10. Nowakowski A, Kozlowski W, Wlodarczyk D, Szajnik-Szczepanski M, Baranowski W. A case of a large solitary fibous tumor of the uterine cervix.BMC Women's health 2014, 14:3.

11. Rahimi K, Shaw P.A, Chetty R. Solitary fibrous tumor of uterine cervix. Int J Gynecol Pathol 2010; 29(2): 189-92

12. Klezl P, Štanc O, Richterova R, Gilbert Z, Zatura F. Benigne fibroepithelial polyp of ureter. Cen Eur J Urol 2013; 66: 168-171

http://www.pathologyoutlines.com/topic/skintumornonmelanocyticfibroepithelialpolyp.html

http://www.pathologyoutlines.com/topic/ovarytumorfibroma.html

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