A Rare Case: Diffusion MRI Findings Of Uterine Mullerian Adenosarcoma

Nadir Bir Olgu: Uterin Müllerian Adenosarkamunun Difüzyon MRI Bulguları

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Abstract

Uterine sarcomas are quite rare of all uterus tumors. A 42 year-old female patient consulted at the hospital complaining about stain-like bleeding for four months. The patient was given a pelvic magnetic resonance imaging (MRI) and diffusion MRI examination. Her endoservical biopsy material histopathologically was revealed mullerian adenosarcoma. In this case report, it was aimed to present pelvic MRI and diffusion MRI findings of a patient with rare uterus sarcoma in correlation with histopathological findings.

Keywords: Uterine cervical neoplasms, diffusion magnetic resonance imaging, adenosarcoma.

Özet

Uterin sarkomlar oldukça nadir görülen neoplazmlardır. 42 yaşında lekelenme tarzında kanama şikayeti olan kadın hastanın jinekolojik muayenesinde endoservikal kanala protrüde olan kitle saptandı. Olgu, pelvik bölgeye yönelik manyetik rezonans görüntüleme (MRG) ve difüzyon ağırlıklı MRG (DAMRG) inceleme ile değerlendirildi. Histopatolojik inceleme sonucu; müllerian adenosarkom olarak rapor edildi. Bu makalede patolojik olarak müllerian adenosarkom tanısı almış olgunun MRG ve DAMRG bulguları değerlendirilip literatür eşliğinde sunulmuştur.

Anahtar Kelimeler: Uterin servikal tümörler, difüzyon manyetik rezonans görüntüleme, adenosarkom..

Introduction

Uterine cervix cancer is the most common gynecological malign tumor after endometrium and over cancer in developed countries. Histologically, 85-95% of the cervical cancers are squamous cell cancers and 2-8% of them are adenocarcinomas (1). Uterus sarcomas are quite rare and constitute 3 % of all uterus tumors . The most common magnetic resonance imaging (MRI) finding is an aggressive hemorrhagic and necrotic uterine mass inducing myometrial invasion or metastatic disease (2). Here, we presented MRI and diffusion weighted MRI (DWMRI) findings of a patient with mullerian adenosarcoma in correlation with histopathological findings.

Case Report

A 42 year-old female patient with a history of six normal deliveries visited department of gynaecology with stain-like bleeding for four months. The gynecological examination of the patient revealed a cauliflower-like mass lesion in cervix sized 4x4 cm with occasional inflammation and bleeding traces on. Her tumor markers were normal. A sample was taken from the mass for histopathological examination.

10% formaldehyde fixed parafin embedded tissues sectoins stained with Hematoxylin-Eosin (H-E). Histopathologically sections showed biphasic tumor which are composed of cystically dilated glands and a mesenchymal component (Figure 1). Thin papillae and broad polypoid fronds projected into the glands and from the surface of the tumor. The glands lined benign collumnar epithelia, the mesenchymal component was consist of a low-grade sarcoma and had a lot mitotic figures. Heterologous elements (fat, cartilage or rhabdomyoblasts etc) were not found. The immunoprofile of sarcomatous component was including immunoreactivity for CD10, estrogen, progesterone, vimentin (Figure 2) and P53. The tumor was diagnosed as mullerian adenosarcoma.

Figure 1: Intraglandular papillae are composed of sarcomatous stroma (H-E X100).

Figure 2: Sarcomatous and glanduler cells positivity for vimentin antibody (Immunperoxidase X200).

In the pelvic MRI of the patient, an increase was observed in the front and rear diameter of cervix. A lobule contoured mass lesion of 5x6 cm was detected which fills the cervical cavity and protrudes towards corpus inferior. The lesion was T1A heterogenous hyperintense, T2A marked hyperintense, and showed clear contrasting after administration of intravenous (IV) contrast medium. Also millimetric cystic points in the mass and thinning in the posterior and lateral of the T2A hypointense stromal rimin around the mass (Figure 3a-b, 4a-b-c). In the DWMRI, the diffusion value at periphery normal myometrium was measured 2.369-2.439 X 10-3 mm2/s, and diffusion value of the mass in cervix was measured 1,237-1,273 x 10-3 mm2/s.

The patient was operated. Hysterectomy and bilateral salphingooopherectomy material were sent in 10% formaldehyde for pathologic examination. Macroscopically 5x4x3 cm measuring, polypoid mass with a bleeding surface was detected in endocervical canal. Microscopic examination of the mass was presented similar histopathologic features with the first biopsy. Myometrial and parametrial invasion were not observed. Angiolymphatic and perineural invasion were not detected. After the operation the patient has recovered without complication.

Figure 3a,b: In coronal T1A non-contrast sections (3a), you can see heterogenous, hyperintense lobule contoured mass lesion protruding uterus corpus by filling in cervical cavity. Coronal T1A contrasted sections (3b), show that mass had evident contrast.

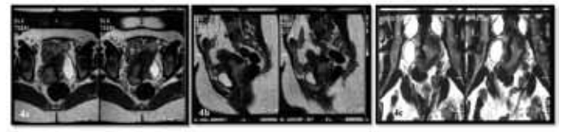

Figure 4a,b,c: In the axial (4a), sagittal (4b) and coronal (4c) T2A sections, it is seen that masses contain hyperintense cystic points and hypointense stromal rimin gets thinner at posterior and lateral.

Discussion

Cervix cancers are most common between 45-55 of age. Most common risk factors include HPV presence, early sexual experience, increased number of births and low socio-economical status. Cervix cancers are the second leading cause of death among cancer-related deaths. Patients may present with such complaints as abdominal mass, stomachache, menorrhagia, perimenopausal bleeding and vaginal fragile bloody mass. However, it is asymptomatic and can be noticed based on the positivity of the Pap smear test during scanning. Physical examination findings include enlarged cervix and uterus filled with secondary liquid due to obstruction. It was reported that tumors more than 4 cm show an increased possibility of nodal and remote metastasis and more frequency of recurrence (3).

Cervix sarcomas are mesodermal in origin and have a bad prognosis developing rapidly. Most important predisposing factor is history of exogene estrogen use and pelvic radiation (5-10 %). Histologic subtypes include, in the order of frequency, malign mixed mullerian tumor (MMMT), leiomyosarcoma and endometrial stromal sarcoma (ESS). Mixed mesodermal tumors, contain both epithelial and mesenchymal cells, can be subdivided into benign-malign lesions. Benign lesions include adenofibroma and adenomyoma and malignant lesions include adenosarcoma, car-

cinosarcoma (malign mixed tumor) and carcinofibroma (4). MMMT has both sarcomatosis and carcinomatosis elements. About one third of the women with MMMT have radiotherapy history due to other pelvis tumors. The second most common one, leiomyosarcoma, constitutes 30% of the uterine sarcomas. The least common of uterine sarcomas is ESS, which constitutes about 20% of the uterine sarcomas. The MR findings of most MMMT, leiomyosarcomas and high graded ESS's are not original. The most common MRI finding is an aggressive hemorrhagic and necrotic uterine mass inducing myometrial invasion or metastatic disease (2).

The cervix cancer is diagnosed with gynecological examination and biopsy. "Federation Internationale de Gynecologie et d'Obstetrique"(FIGO) phasing is used in cervix cancer. FIGO phasing is reported to yield erroneous results at rates 25-35% depending upon the phase of the disease (5). MRI can be used in local staging, evaluations of distant metastasis, therapy response and recurrence in gynecologic cancer (6). MRI is useful not only for preoperative staging of gynecologic malignancies but also for the prediction of the histopathologic features of variety of intrapelvic tumors. In uterine cervical lesions, the typical MRI findings correspond with the histopathologic features (7). MRI has high rate of precision and reliability in radiology. In MRI, cervix sarcomas are imaged as isointense with cervix in T1A images and as hyperintense infiltration hypointense cervical stroma at T2A imaging (3). We also observed in our case hemorrhagic mass lesion with lobular contour, showing T1A heterogenic hyperintense and T2A evident hyperintense signal characteristics. Invasion is indicated by disappearance of the sharpness of cervical margin, margin irregularity, erasing periuretral fat plans and expansion of soft tissue stripes to the neighborhood (3). In our case stromal rim occasionally gets thinner but still preserved. Pelvis wall and bladder invasion in cervix cancer can be detected with more than 90% precision thanks to MRI. Pelvic lymphadenomegalies can be evaluated. Secretion accumulation in uterine cavity can be observed due to cervical os obstruction (3).

DWMRI is an MR examination method which allows detecting quantitative diffusion values of the water molecules in biological tissues in a non-invasive manner. The presence of hyperintensity in DWMRI indicates both diffusion restriction and T2 shine. To overcome this, analog digital convertor (ADC) map is used. Areas with diffusion restriction have low ADC values and unlike DWMRI they are observed as low signal areas. DWMRI and ADC together are the combination of capillary perfusion effect and water molecules' diffusion effect in extracellular extravascular area. Thus, this method can help in the characterization of different abnormalities and can be used in distinguishing normal tissues from abnormal ones (8). Although there are limited number of diffusion studies in literature about cervix carcinomas, no DWMRI studies were found about cervical sarcomas. McVeigh et al. (9) found in their study diffusion weighted MRI examination on 47 cases with cervix carcinoma that mean ADC values (1.09 x 10-3mm2/s) in cervical carsinom are significantly less than normal cervical stroma's mean ADC values (2.09 x 10-3mm2/s). In the present case, the ADC values of the mass were found 1.24-1.27 x 10-3mm2/s, while normal myometrium's ADC values were measured 2.37- 2.44 x 10-3mm2/s. With these characteristics the mass show the diffusion restriction as it is expected in malign masses.

Consequently, it was concluded that MRI is highly precise and reliable in cervical diagnosing and tracing the masses. DWI provides additional data supporting preoperative diagnosis by enabling evaluation of masses and normal tissue with quantitative data. In this study, we presented the findings from MR imaging of a rare case of cervical mullerian adenosarcoma. It is believed that the contribution of DWI to the diagnosis of sarcoma in patients will be better understood as the number of the cases increases.

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Nadir Görülen Bir Kulak Lezyonu: Kondrodermatitis Nodularis Kronika Helisis

A Rarely Seen Auricle Lesion: Chondrodermatitis Nodularis Chronica Helicis

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Özet

Kondrodermatitis nodularis kronika helisis (KNKH) kulak kepçesinde görülen etyolojisi kesin olarak belirlenmemiş ağrılı, soliter lezyonla karakterize bir hastalıktır. Lezyonların tedavisinde medikal veya cerrahi birçok yöntem denense de patolojik inceleme ile malign deri tümörlerinden ayırıcı tanısının yapılma gerekliliği ve kesin tedavisi için cerrahi altın standarttır. Biz sık görülmeyen, tanı ve tedavisinde çelişkiler yaşanan bu hastalığa sahip üç olgu ve cerrahi tedavi sonuçlarını sunuyoruz .

Anahtar Kelimeler: Kondrodermatitis nodülaris kronika helisis, aurikula, tedavi

Abstract

Chondrodermatitis nodularis chronica helicis (CNCH) is a disorder that presents as a painful, solitary nodule of the external ear where exact aetiology is still unknown. Management of CNCH can be with surgical or nonsurgical modalities. But the necessary pathologic evaluation to differantiate from any malignancy and definitive treatment chance makes surgical excision as a gold standard. We describe three rarely seen cases and their outcomes which were surgicalally treated.

Keywords: Chondrodermatitis nodularis chronica helicis, auricle, treatment

Giriş

Kondrodermatitis nodülaris kronika helisis kulak kepçesinde bulunan küçük, ağrılı, ciltten hafif kabarık nodülle karakterize nadir görülen bir hastalıktır. Lezyonlar üzerinde ülserasyon görülebilir ve minimal basınca bile duyarlıdırlar. Spontan remisyon nadir olmakla beraber malignite potansiyelleride yoktur.(1,2,3) Çoğunlukla helikste görülse de antitragus ve antihelikste de görülebileceği bildirilmiştir.(2) 40 yaş üstü erkeklerde ve sağ kulakta daha sık görülmektedir.(2,3) İlk olarak1915'te Winkler tarafından tanımlanmış olan bu durumun etiyolojisi hakkında birçok teori ortaya atılmış olsa da kesin etyolojisi henüz saptanamamıştır.

Olgu 1

28 yaşında erkek hasta kliniğimize her iki kulağında farklı zamanlarda çıkan ağrılı lezyonlarla başvurdu. Herhangi bir travma hikayesi yoktu. Özgeçmişi sorgulandığında hastanın 10 sene önce diabetes mellitus tanısı aldığı ve antidiyabetik kullandığı öğrenildi. Hasta lezyonlardan sağ kulaktakinin 1 sene önce ve soldakinin ise ilkinden 3 ay sonra çıktığını söyledi. Yapılan fizik muayenede bilateral helikste 5x7 mm boyutlarında ciltten kabarık hafif hipopigmente ortası erode ağrılı lezyonlar saptandı. Hasta bize başvurduğunda ağrıdan dolayı her iki yanına da yatamamaktaydı. Lezyonlar lokal anestezi altında wedge şekilde eksize edilerek defektler primer onarıldı. 16 aylık takibin-