Vaginal myofibroblastoma with glands expressing mammary and prostatic antigens

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SUMMARY
A case of unusual vaginal myofibroblastoma containing glands which expressed mammary and prostatic markers is described. The tumor occurred in 70-year-old woman in the proximal third of the vagina. It showed morphology and immunophenotype typical of so-called cervicovaginal myofibroblastoma. The peripheral zone of the lesion contained a few groups of glands suggesting vaginal adenosis or prostatic-type glands on initial examination. The glands showed a surprising simultaneous expression of mammary markers mammaglobin and GCDFP-15 and prostatic markers prostate-specific antigen (PSA) and prostate-specific acid phosphatase (PSAP). Immunostains for alpha-smooth muscle actin, p63 and CD10 highlighted the myoepithelial cell layer of the glands. The finding indicates that simultaneous use of both mammary and prostatic markers for examination of unusual glandular lesions in the vulvovaginal location can be helpful for an exact diagnosis, and can contribute to better understanding of prostatic and mammary differentiations in the female lower genital tract.

Keywords: vagina – myofibroblastoma – mammary glands – prostatic glands – immunohistochemistry

Vaginálny myofibroblastóm so žliazkami exprimujúcimi mamárne a prostatické antigeny

SÚHRN
Popísaný je prípad vaginálneho myofibroblastómu, ktorý obsahoval žliazky pozitívne imunohistochemicky na mamárne a prostatické markery. Jednalo sa o tumor zistený u70-ročnej pacientky v proximálnej tretine vagíny. Morfológia a imunofenotyp lézie boli typické pre cervikovaginálny myofibroblastóm. Periférna subepitelová zóna tumoru obsahovala niekoľko skupín žliazok, u ktorých bola predpokladaná pri prvom vyšetrení diagnóza vaginálnej adenózy alebo prostatických žliazok. Imunohistochémia ukázala prekvapujúcu pozitivitu týchto žliazok na prostatické i mamárne markery súčasne (prostatický špecifický antigén, prostatická kyslá fosfatáza, mamaglobín, GCDFP-15). Myoepitel žliazok exprimoval hladkosvalový aktín, p63 a CD10. Nález ukazuje, že pri vyšetrení glandulárnych lézií dolného genitálneho traktu ženy môže simultánne vyšetrenie na prostatické a mamárne antigény byť prínosom pre diagnózu i pre ďalšie poznanie mamárnej a prostatickej diferenciácie v tejto lokalizácii.

Kľúčové slová: myofibroblastóm – vagína – mamárna žľaza – prostata – imunohistochémia

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Cervicovaginal myofibroblastoma (myofibroblastoma of the lower genital tract) is one of the distinct mesenchymal genital tract tumors that have been described only recently (1–3). Additional unusual lesions of the lower genital tract which have been recently described are mammary type tumors with the corresponding mammary immunophenotype (4–6) and prostatic type glandular lesions expressing prostatic antigens such as prostate-specific antigen (PSA) and prostate-specific acid phosphatase (PSAP) (7–11).

Here, we present an interesting vaginal tumor that showed features of myofibroblastoma containing in its superficial zone several unusual bland-appearing glands. These glands expressed mammary and prostatic antigens simultaneously. To the best of our knowledge, a similar finding has not been reported before.

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MATERIAL AND METHODS

The tissue was fixed in 4% formalin and processed routinely. The sections were stained with hematoxylin and eosin, periodic acid-Schiff stain (PAS) with and without diastase digestion, mucicarmine, and alcian blue at pH 2.5. For immunohistochemistry, the following primary antibodies were used: alpha-smooth muscle actin (clone 1A4), desmin (clone D33), S100 (polyclonal), estrogen receptor (ER) (clone 1D5), progesterone receptor (PR) (clone PgR636), androgen receptor (AR)(ER441), mammaglobin (304-1A5), prostate-specific antigen (PSA) (polyclonal), high-molecular weight cytokeratin K903 (34BE12), p63 (4A4) (all from DAKO, Glostrup, Denmark), GCDFP-15 (EP1582Y, Ventana Medical Systems, Tuscon, USA), prostate-specific acid phosphatase (PSAP) (PASE/4LJ, Ventana Medical Systems, Tuscon, USA), CD10 (clone