CASE REPORT

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Cervical poorly differentiated adenocarcinoma with dominant choriocarcinomatous pattern – A case report

Slabo diferentovani cervikalni adenokarcinom sa preovlađujućom formom horiokarcinoma

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Abstract

Introduction. Gestational trophoblastic neoplasm (GTN), choriocarcinoma in coexistence with primary cervical adenocarcinoma, is a rare event not easy to diagnose. Choriocarcinoma is a malignant form of GTN but curable if metastases do not appear early and spread fast. **Case report.** We presented choriocarcinoma in coexistence with primary cervical adenocarcinoma in a 48-year-old patient who had radical hysterectomy because of confirmed cervical carcinoma (Dg: *Carcinoma porto vaginalis uteri* FIGO st I B1). Histological findings confirmed cervical choriocarcinoma with extensive vascular invasion and apoptosis but GTN choriocarcinoma was finally confirmed after immunohystochemical examinations. Preoperative serum human gonadotropine (beta hCG) level stayed unknown. This patient did not have any pregnancy-like symptoms before the operation. The first beta hCG monitoring was done two months after the operation and found negative. According to the final diagnosis the decision of Consilium for Malignant Diseases was that this patient needed serum hCG monitoring as well as treatment with chemotherapy for high-risk GTN and consequent irradiation for adenocarcinoma. **Conclusion.** The early and proper diagnosis of nonmetastatic choriocarcinoma of nongestational origine in coexistence with cervical carcinoma is curable and can have good prognosis.

Key words:
uterine cervical neoplasms; adenocarcinoma; choriocarcinoma; comorbidity; histology; gynecologic surgical procedures.

Apstrakt

Uvod. Gestacijska trofoblastna neoplazma (GTN), horiokarcinom zajedno sa primarnim cervikalnim adenokarcinomom retko se javlja i nije ga lako dijagnostikovati. Horiokarcinom je maligni oblik GTN i izlečiv je ako se ne pojave rane metastaze koje se brzo šire. **Prikaz bolesnika.** Kod bolesnice, stare 48 godina, sa primarnim karcinomom grlića materice i istovemeno horiokarcinomom urađena je radikalna histerektomija zbog potvrđenog karcinoma cerviksa (Dg: *Carcinoma porto vaginalis uteri* FIGO st I B1). Histološkim pregledom potvrđen je horiokarcinom cerviksa sa rasprostranjenom vaskularnom invazijom i apoptozom, ali je definitivna dijagnoza GTN – *choriocarcinoma* potvrđena nakon imunohistohemijskog pregleda. Preoperatvne vrednosti humanog horiogonadotropina (beta hCG) u serumu nisu bile poznate. Pre operacije bolesnica nije imala simptome slične onim u trudnoći. Prvi beta hCG kontrolisan je dva meseca nakon operacije i bio je negativan. U skladu sa konačnom dijagnozom, preporuka konzilijuma za maligne bolesti bila je hemioterapija prema protokolu za GTN visokog rizika uz zračnu terapiju za adenokarcinom, kao i redovne kontrole serumskog hCG. **Zaključak.** Pravovremena i tačna dijagnoza nemetastatskog horiokarcinoma negastacijskog porekla zajedno sa karcinomom cerviksa je izlečiva i može da ima dobar ishod.

Ključne reči:
grlić materice, neoplazme; adenokarcinom; horiokarcinom; komorbiditet; histologija; hirurgija, ginekološka, procedure.

Introduction

Gestational trophoblastic neoplasms (GTNs) represent the disturbance of fertilization and usually appear in women younger than 20 and older than 40. In the majority of instancies GTNs are developed as benign forms (complete or partial hydatidiform mole). Malignant forms of GTNs can seriously damage reproductive health and even have a letal outcome. Choriocarcinoma is a highly potent malignant form most often localized in uterine tissue. Trophoblast invasion

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and fast metastases spreading is following high risk choriocarcinoma with poor prognosis. Choriocarcinoma is usually of gestational origine and diagnosed after normal or molar pregnancy as well as after delivery. It can also be a nongestational event. Choriocarcinoma in coexistence with primary cervical adenocarcinoma is a rare event [1–5]. Cases of GTN in coexistance with primary cervical adenocarcinoma are very complex and it is not easy to make a fast and proper diagnosis. Serum human chorionic gonadotropine (hCG) is of a great value for diagnosing GTNs. Serum hCG level depends of syncyciotrophoblast activity and hormone secretion. It is necessary to check it during the follow-up programme after molar evacuation, surgical treatment and chemotrerapy [4–6].

In cases with coexsisting malignancies hystological examination could not give a final relevant answer and immunohistochemical techniques should be of a great value [5, 6].

Case report

A 48-year-old patient, 4 gravida, 2 para, was hospitalized for operative treatment because of cervical carcinoma (Dg: *Ca portio vaginalis uteri* FIGO st I B1). Radical hysterectomy was done.

Department of Histopathology Birmingham. The planomorphic tumor that invaded endocervical tissue with biphasic intimate mixture of cytotrophoblast and syncytial trophoblast was found. Some mononuclear cells were positive for human placental lactogen (HPL) which was likely to be an intermediate trophoblast component.

The differential diagnosis was between choriocarcinoma of the cervix, an epithelioid trophoblastic tumor of the cervix, and an adenocarcinoma of the cervix with the dominant choriocarcinoma pattern. The final diagnosis was: poorly differentiated adenocarcinoma with a dominant choriocarcinomatous pattern.

The patient did not have preoperative hCG monitoring, no any symptoms suggestive of pregnancy.

The first hCG monitoring was done two months after the operation and found negative result, < 1 IU/L, and a week later 2.7 IU/L. Chest and head radiography excluded metastases.

According to the final diagnosis the patient needed careful monitoring of the hCG levels as well as treatment with chemotherapy for high–risk GTN.

The patient rejected chemotherapy treatment and left after one month in good condition when the third hCG level was 58.3 IU/L.

Methotrexate + folinic acid (MTX+FA) was used to treat this nonmetastatic trophoblastic neoplasm (5-day treatment

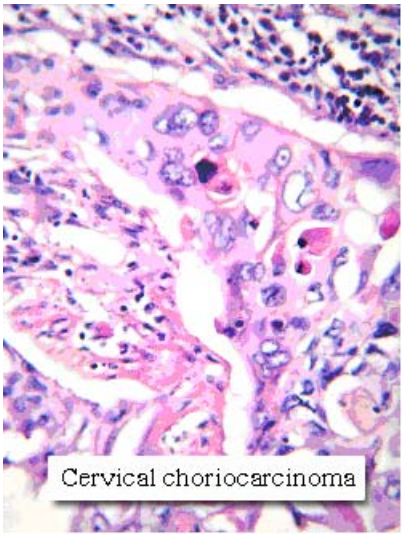

Fig. 1 – Histological finding of cervical choriocarcinoma (HE, ×20).

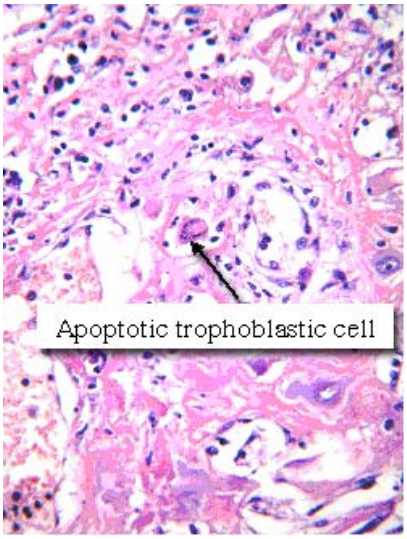

Fig. 2 – Apoptotic trophoblastic cells (HE, ×20).

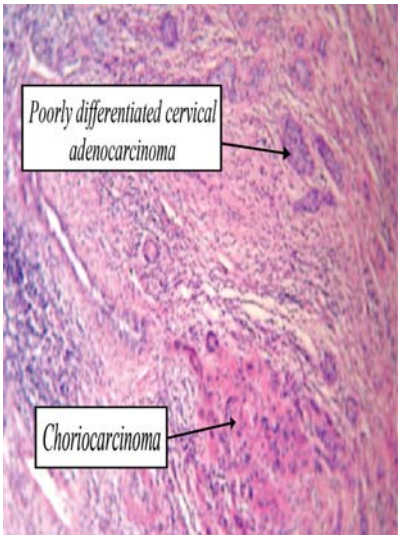

Fig. 3 – Poorly differentiated cervical adenocarcinoma (above) with the dominant choriocarcinomatous pattern (below) (HE, ×20).

Hystologycal findings confirmed pleomorphic tumor which invades through the endocervical tissue with extensive hemorrhage and necrosis. Cervical choriocarcinoma with extensive vascular invasion and apoptosis was also described (Figures 1 and 2). Immunohystochemical examination was performed and cervical adenocarcinoma and malignant gestational trophoblastic neoplasm was finally confirmed (Figure 3). Because of the unclear GTN diagnosis choriocarcinoma *vs* placental site trophoblastic tumor, tissue blocks of cervical tumour were sent to Consultant Histo/Cytopathologist-

cycle with the window of 10–14 days between the last day of one course and the first day of the next one).

After the first MTX+FA treatment the hCG level was negative, as well as after the second chemotherapy treatment.

The consiliar decision for this patient was to receive two MTX+FA regimens before irradiation therapy for adenocarcinoma. The third MTX+FA regimen was suggested two weeks after the irradiation treatment. The patient rejected the third MTX+FA treatment. Seven months after the operation, the patient was alive with the negative hCG level.

Discussion

It is believed that nongestational choriocarcinoma can develop from gonadal pluripotent germ cells and can be found in the liver, lungs, colon, bladder, breast, and other sites [1–5]. According to the literature cervical localization is very rare [6]. Serum hCG is the most relevant parameter in the diagnosis of GTN but it depends of secretion of syncyciotrophoblast which is a hormone active component of choriocarcinoma [1, 4–6]. Nongestational choriocarcinoma usually follows significantly lower hCG level than choriocarcinoma of postgestational origine [5]. Cytopathology and immunohistology is of a great help in the differential diagnosis. In excluding metastases, chest and brain radiography has to be done before any treatment.

In cases with complex malignancy as in the presented case treatment and follow-up must be performed not only for choriocarcinoma but also for adenocarcinoma [6].

Conclusion

The early and proper diagnosis of nonmetastatic choriocarcinoma of nongestational origine in coexistence with cervical carcinoma is curable and can have good prognosis.

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