

Neuroendocrine Tumors of the Uterine Cervix: Case Report

Hamza Zizi, Houda Mouchtari Nisrine Mamouni, Sanae Errarhay, Chahrazed Bouchikhi, Abdelaziz Banani

Department of gynecology and obstetric I, CHU Hassan II, Fez, Morocco,

Corresponding author: Hamza Zizi

Email address: dr.hamza.26@gmail.com

Highlights: Neuroendocrine, uterine, cervix, tumors

Abstract: Neuroendocrine tumors of the uterine cervix represent 0.9 to 1.5% of cervical tumors. A 48 years old woman was referred to our gynecology and obstetrics department complaining of metrorrhy in the last 2 months. Pelvic MRI showed Endocervical tumor process of 25*23 mm in the uterine cervix. Cervical biopsy was performed with a histological study who showed a cervical neuroendocrine carcinoma. Radiotherapy and chemotherapy were performed after the surgery

Introduction :

Neuroendocrine tumors of the uterine cervix represent 0.9 to 1.5% of cervical tumors [1]

It tends to be aggressive and is associated with a poorer prognosis, even when diagnosed at an early stage.

We report a case of a neuroendocrine tumor of the uterine cervix during the year 2019 at the Hassan 2 Hospital Center in Fez.

Case report :

A 48 years old woman, coming from a rural area ,who has an cholecystectomy thirty years ago, was referred to our gynecology and obstetrics department in Fez, complaining of metrorrhy in the last 2 months, with no other associated gynecologic or extra-gynecologic sign.

Her menstrual cycle was normal with regular periods.

No abnormality was detected on systemic examination.

Gynecological examination was showed a ulcerating mass on the anterior lip of the cervix of 2*2 cm bleeding on contact.

Endovaginal ultrasonography was normal

Pelvic MRI showed Endocervical tumor process of 25*23 mm in the uterine cervix

Cervical biopsy was performed with a histological study who showed a cervical neuroendocrine carcinoma.

We decided to perform a laparotomy:

- Wertheim + bilateral adnexectomy + pelvic curage + lumbo-aortic picking

The postoperative course was remarkable.

Histological examination of the surgical pieces was consistent with cervical neuroendocrine carcinoma.

Radiotherapy and chemotherapy were performed after the surgery

One year after the surgical intervention, the physical examination, abdominal and vaginal ultrasonography were satisfying.

Discussion:

Neuroendocrine tumors develop mainly in the digestive tract and lungs digestive tract and lungs; in the cervix, account for only 0.9 to 1.5% of cervical tumors, which are generally predominantly

predominantly by epidermoid cell carcinoma (2)

Unlike squamous cell carcinomas of the uterine cervix, neuroendocrine carcinomas are often diagnosed late because of the ineffectiveness of cervical smears in detecting small cell neuroendocrine carcinomas (4.5)

Clinically, they are manifested by menometrorrhagia and leukorrhea, exceptionally by a paraneoplastic syndrome (3)

The diagnosis is based on the histological and immunohistochemical study by showing at least one neuroendocrine marker that allows the diagnosis.

Radiological examination should include abdominal-pelvic imaging, preferably magnetic resonance imaging.

Positron emission tomography has shown superiority in monitoring lesions from both a morphological and metabolic. It is becoming the tool of choice to see the effectiveness of treatment (6)

Staging is the same as for all cervical tumors. It is important to recognize the increased risk of lymphatic and vascular invasion and the high rate of extra pelvic recurrence.

The metastases are located in the bone, supra clavicular and lung.

The treatment of neuroendocrine carcinomas of the uterine cervix is modelled on that of squamous cell carcinomas.

In absence of trials comparing radiotherapy and surgery, some authors have preferred a multimodal treatment. By combining surgery, radiotherapy and chemotherapy, Chan et al achieved a five-year survival rate of 32%, which is significantly higher than those reported in the various series. Long-term survivors were patients with tumors less than 2 cm in size who underwent radical surgery. (8)

for inoperable patients, a combination of radiotherapy and chemotherapy is recommended, according to the protocol of Hoskins et al. (9)

Conclusion:

Neuroendocrine tumors of the uterine cervix are very aggressive and rare tumors which explains the lack of randomized trials and which makes their management increasingly difficult.

Iconography:



Figure1: picture showing the surgical piece after the procedure

References:

1. Gadducci A, Carinelli S, Aletti G. Neuroendocrine tumors of the uterine cervix: a therapeutic challenge for gynecologic oncologists. *Gynecol Oncol.* 2017;144(3):637-646. PubMed | Google Scholar
2. Baggar S, Ouahbi H, Azegrar M, El M'rabet FZ, Arifi S, Mellas N. Neuroendocrine carcinoma of the cervix: a case report and review of the literature. *Pan Afr Med J.* 2017;27:82. PubMed | Google Scholar
3. Bellefqih S, Khalil J, Mezouri I, Kebdani T, Benjaafar N. Carcinome neuroendocrine à petites cellules du col utérin: à propos de six cas et revue de la littérature. *Cancer/Radiothérapie.* 2014;18(3):201-207. PubMed | Google Scholar
4. Wang PH, Liu YC, Lai CR, Chao HT, Yuan CC, Yu KJ. Small cell carcinoma of the cervix: analysis of clinical and pathological findings. *Eur J Gynaecol Oncol.* 1998; 19(2): 189-92. PubMed | Google Scholar
5. Zhou C, Hayes MM, Clement PB, Thomson TA. Small cell carcinoma of the uterine cervix: cytologic findings in 13 cases. *Cancer.* 1998 Oct 25; 84(5): 281-8. PubMed | Google Scholar
6. Bonardel G, Chargari C, Gontier E, Bauduceau O, Soret M, Dechaud C et al. Tomographie par émission de positons dans la prise en charge des cancers du col de l'utérus. *Cancer Radiother.* 2009 Oct; 13(6-7): 490-8. PubMed | Google Scholar
7. Van Nagell Jr JR, Powell DE, Gallion HH, Elliott DG, Donaldson ES, Carpenter AE et al. Small cell carcinoma of the uterine cervix. *Cancer.* 1988 Oct 15; 62(8): 1586-93. PubMed | Google Scholar
8. Chan JK, Loizzi V, Burger RA, Rutgers J, Monk BJ. Prognostic factors in neuroendocrine small cell cervical carcinoma: a multivariate analysis. *Cancer.* 2003 Feb 1; 97(3): 568-74. PubMed | Google Scholar
9. Hoskins PJ, Swenerton KD, Pike JA, Lim P, Aquino-Parsons C, Wong F et al. Small cell carcinoma of the cervix: fourteen years of experience at a single institution using a combined modality regimen of involved field irradiation and platinum based combination chemotherapy *J Clin Oncol.* 2003; 21: 3495-501. Google Scholar