

## Non-Gestational Endometrial Choriocarcinoma in Postmenopausal Period: About Rare Case, Special Features of Diagnosis and Treatment

Meryem Belmajdoub\*, Sofia Jayi, Fatima Zouhra Fdili Alaoui, Hekmat Chaara, Moulay Abdelilah Melhouf

Centre Hospitalier Hassan II, Service De Gynécologie Obstétrique II, Centre Hospitalier Hrazem, BP:1835 Atlas, Fès· Avenue Hassan II, Fes 30050, Morocco

DOI: [10.36348/sijog.2019.v02i08.008](https://doi.org/10.36348/sijog.2019.v02i08.008)

| Received: 05.08.2019 | Accepted: 13.08.2019 | Published: 30.08.2019

\*Corresponding author: Belmajdoub Meryem

### Abstract

Choriocarcinoma is a malignant proliferation of the trophoblastic epithelium, not including chorionic villi but permanent vascular invasion. It is a rare tumor, most often of gestational origin, occurring in 75% of cases after a molar pregnancy. Choriocarcinoma in postmenopausal period is very rare however some cases of choriocarcinoma developing after a long latency period from the last pregnancy have been reported. We report an original case of a postmenopausal woman with non-gestational endometrial choriocarcinoma occurring 14 years after menopause. There are no well-defined guidelines for the treatment of postmenopausal choriocarcinomas. Their prognosis is very unfortunate, yet it has changed completely, from 19% to 90% survival since the onset of chemotherapy.

**Keywords:** Non gestational endometrial choriocarcinoma, postmenopausal woman, plasma beta hCG, chemo sensitivity.

**Copyright © 2019:** This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (Non-Commercial, or CC-BY-NC) provided the original author and source are credited.

### INTRODUCTION

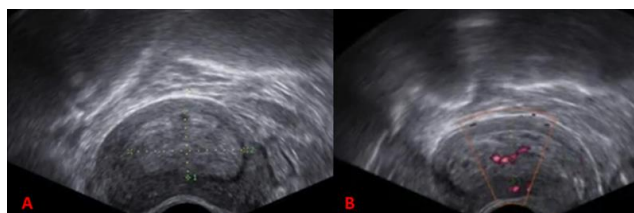
Choriocarcinoma is a highly malignant trophoblastic tumor composed of two types of cells: syncytio-trophoblastic and cytotrophoblastic [1]. Most cases of choriocarcinoma are intra-uterine and gestational in origin [2]. Non-gestational choriocarcinoma is thought to derive from multipotent germ cells that develop most often in the gonads [1]. Choriocarcinoma in postmenopausal women is very rare however some cases of choriocarcinoma developing after a long latency period from the last pregnancy have been reported [1-2]. We report an original case of a postmenopausal woman with non-gestational endometrial choriocarcinoma occurring 14 years after menopause.

### OBSERVATION

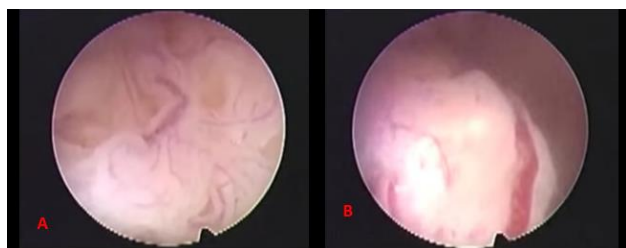
56-year-old patient, postmenopausal 14 years ago, multiparous, admitted for support pelvic pain associated with metrorrhagia of average abundance with dyspnea. Clinical examination found hemodynamic and respiratory stable patient, BMI at 20, with gynecological cervical examination healthy cervix with moderate preventing bleeding from the endocervix, uterus was mobile, painless and increased reaching 2

fingers across the umbilicus. Breast examination is without particulates. Pelvic ultrasound revealed an enlarged uterus with a thick, heterogeneous endometrium that was very vascularized by Doppler (Figure-1 A-B) with the presence of two Doppler heterogeneous hyperechogenic heterogeneous side masses, no pelvic effusion. From a biological point of view, the hemoglobin level was correct with a normal hemostasis report. The patient benefited from a Hysteroscopic diagnosis that objectified diffuse endometrial hypertrophy with signs of atypia (Figure-2 A-B), performing an endometrial curettage whose histological study returned to favor a uterine choriocarcinoma. A rate of  $\beta$ HCG was made positive at 271600 IU / l. The other tumor markers found a high CA 125 at 152, CA 19.9 at 16 U / ml, ACE at 8.6. An extension assessment based on a TAP CT was made in favor of a tumor of the endometrium invading the myometrium with pulmonary secondary locations not seen of carcinomatosis nodule with presence of 2 bilateral ovarian masses of 57 mm x 35 mm and 115 mm x 70 mm double component, Note no digestive thickening (Figure-3 A-B). The patient was presented in a multidisciplinary consultation meeting where the decision of a type EMA CO chemotherapy that has currently received ten cures with good clinical

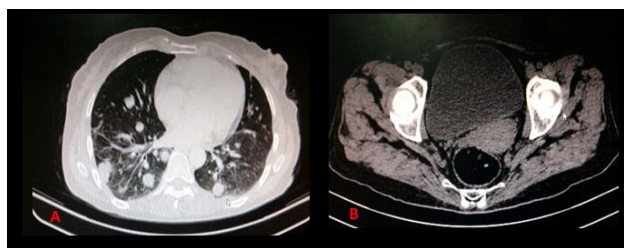
response, biological (degression of HCG b) and stabilization of pulmonary metastatic lesions.



**Fig-1(A-B): Enlarged uterus with a thick, heterogenous endometrium that was very vascularized by Doppler**



**Fig-2(A-B): Hysteroscopic appearance showing diffuse endometrial hypertrophy with signs of atypia type anarctic vascularization**



**Fig-3(A-B): Pelvic CT-scan: tumor of the endometrium invading the myometrium with pulmonary secondary locations**

## DISCUSSION

Uterine choriocarcinomas are rare, highly malignant trophoblastic tumors [1]. They can be divided into two types: gestational and non-gestational. In general, choriocarcinomas occur in women of reproductive age, often in the first year after a molar or non-molar pregnancy [2].

The gestational forms are due to the degeneration, in 75% of the cases, of a molar pregnancy in its complete form. Rare cases are reported after a normal full-term pregnancy, after miscarriage or even after ectopic pregnancy [3]. Some cases are described after hysterectomy with latency periods rarely exceeding 10 years [4]. The physiopathological mechanism of this degeneration is complex with several factors at play. It seems that the excess of paternal genetic material is at the origin of these anomalies [5].

Non-gestational choriocarcinomas may develop from germ cells or trophoblastic differentiation occurring in endometrial carcinoma, extra-ovarian germ-cell tumors (including choriocarcinomas) may develop from germ cells that have failed to complete their migration to the gonads [6]. However,

choriocarcinomas originating from germ cells and developing in the female genital tract in postmenopausal women are extremely rare [5, 6]. The immunohistochemical study is of considerable contribution to the differential diagnosis of choriocarcinoma, so a diffuse positivity with beta hCG confirms the diagnosis of choriocarcinoma [7]. Serum AFP levels of Ca-125 and beta hCG are also used in the differential diagnosis of choriocarcinoma [7, 8].

Primitive forms are exceptional in the literature and sporadically described at the uterine level but also in the ovary, stomach, heart, vulva, and breast [8]. These primitive forms usually occur in older patients [9]. They appear to have a more aggressive pathogenesis and a poorer prognosis than the gestational forms, probably by a later diagnosis, explaining the frequent metastases [8-9]. It is the  $\beta$ HCG assay that makes it possible to evoke the diagnosis, nor is it routinely prescribed in these patients [10]. For the uterine forms described, choriocarcinoma is never isolated. It is found associated with adenocarcinoma most often but also with carcinosarcomas or mixed mesodermal tumors [11]. The treatment of these tumors is based on first-line poly chemotherapy in metastatic forms. This refers to poly chemotherapy used in gestational forms at high risk of metastatic disease [12]. The surgery is performed in a second step, because of the association with other histological carcinomatous forms [12]. If the diagnosis is made on the hysterectomy specimen, the chemotherapy will depend on the evolution of the  $\beta$ HCG and the extension balance [11, 12]. The prognosis of these tumors has completely changed, from 19% to 90% survival since the onset of chemotherapy [13]. There is no established consensus on surveillance. It is based on  $\beta$ HCG monitoring, weekly at baseline, then every 15 days until negativity. Then, for one year, the control can be monthly, then quarterly. Radiological examinations are requested according to the clinic and in front of a rise in HCG [14].

## CONCLUSION

Choriocarcinoma is a rare tumor that needs to be diagnosed in postmenopausal patients because of its chemosensitivity. This is based on a simple and inexpensive examination: the determination of  $\beta$ HCG. Surgery coming in second intention. Regular biological and clinical monitoring is required in the suites.

## REFERENCES

1. Desai NR, Gupta S, Said R, Desai P, Dai Q. Choriocarcinoma in a 73-year-old woman: a case report and review of the literature. *Journal of medical case reports*. 2010 Dec;4(1):379.
2. O'Neil CJ, Houghton F, Clarke J, McCluggage WG. Uterine gestational choriocarcinoma developing after a long period in a postmenopausal

- woman: the value of DNA polymorphism studies. *Int J Surg Pathol.* 2008;16(2):226-9.
3. Sonobe H, Taguchi K, Ogawa K, Yoshioka T. Latent vaginal choriocarcinoma in a postmenopausal woman. *Pathology International.* 1976 Sep;26(5):611-8.
  4. Weiss S, Amit A, Schwartz MR, Kaplan AL. Primary choriocarcinoma of the vulva. *International Journal of Gynecologic Cancer.* 2001 May 1;11(3):251-4.
  5. Fisher RA, Savage PM, MacDermott C, Hook J, Sebire NJ, Lindsay I, Seckl MJ. The impact of molecular genetic diagnosis on the management of women with hCG-producing malignancies. *Gynecologic oncology.* 2007 Dec 1;107(3):413-9.
  6. Mukherjee U, Thakur V, Katiyar D, Goyal HK, Pendharkar D. Uterine choriocarcinoma in a postmenopausal woman. *Medical Oncology.* 2006 Jun 1;23(2):301-303.
  7. Ulbright TM. Germ cell tumors of the gonads: a selective review emphasizing problems in differential diagnosis, newly appreciated, and controversial issues. *Modern Pathology.* 2005 Feb;18(2):S61-79.
  8. Stiemer B, Graf R, Neudeck H, Hildebrandt R, Hopp H, Weitzel HK. Antibodies to cytokeratins bind to epitopes in human uterine smooth muscle cells in normal and pathological pregnancies. *Histopathology.* 1995 Nov;27(5):407-14.
  9. National Cancer Institute. U.S.A.: National Cancer Institute; Gestational Trophoblastic Disease Treatment, health professional: Stage Information for Gestational Trophoblastic Disease. 2013.
  10. Droz JP, Lhomme C. Les tumeurs trophoblastiques gestationnelles. *La Revue du praticien.* 1992;42(7):817-22.
  11. Lurain JR. Treatment of gestational trophoblastic tumors. *Current treatment options in oncology.* 2002 Apr 1;3(2):113-24.
  12. Radotra BD. Pure non-gestational choriocarcinoma of ovary a case report with autopsy findings. *Indian journal of pathology & microbiology.* 2001 Oct;44(4):503-5.
  13. Liu, Z., Mira, J. L., & Cruz-Caudillo, J. C. (2001). Primary gastric choriocarcinoma: a case report and review of the literature. *Archives of pathology & laboratory medicine,* 125(12), 1601-1604.
  14. Murata T, Ihara S, Nakayama T, Nakagawa SI, Higashiguchi T, Imai T, Nakano H, Shiraishi T, Kuroda M, Moriya T. Breast cancer with choriocarcinomatous features: a case report with cytopathologic details. *Pathology international.* 1999 Sep;49(9):816-9.