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Cervical Metastases of Papillary Thyroid Carcinoma: A Case Report

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Abstract **Case Report**

Visceral metastases induced by thyroid cancer are extremely rare. We report the case of a 43-year-old woman with a surgical history of thyroidectomy and radioiodine therapy with opotherapy for papillary carcinoma of the thyroid. Nine years after this treatment, the patient had presented a polyp in the uterine cervix. The excisional biopsy found a metastasis of papillary thyroid carcinoma. The morphological and immunohistochemical studies confirmed the thyroid origin of this metastasis. A total colpohysterectomy with pelvic lymph node dissection supplemented with radioactive iodine cures was performed. In addition, scanning scintigraphy revealed metastatic foci in the bone, liver and brain. After 11 treatments of radioiodine therapy, the evolution was marked by the progression of bone and liver metastases. The presence of cervical metastases of thyroid carcinoma has never been described in the screens. It has a pejorative prognosis, so thinking about a therapeutic strategy will be necessary.

Keywords: Papillary carcinoma, Metastasis thyroid, Cervical cancer.

INTRODUCTION

Papillary thyroid carcinoma is the most common histological type found in thyroid cancer. It accounts for 60% of thyroid cancers [1]. Its prognosis is usually good, characterized by an extension most often locoregional. In this type of cancer, distant metastases are observed in only 3.5 to 3.8% of cases [2,3]. They are mainly pulmonary, bony, and cerebral [4]. The location at the cervix has never been described in the literature. We report the case of a patient with papillary thyroid cancer (PTC). The patient has survival 4 years after the appearance of metastases in the cervix. Subsequently, other diffuse metastatic foci appeared.

CLINICAL CASE

A 43-year-old woman with no particular medical history had been followed up for nine years previously for (PTC). She was treated with total thyroidectomy without prophylactic central neck lymph node dissection. Nine months later, she had presented a locoregional evolutionary pursuit without distant metastases. She was treated with 4 radioiodine therapy courses of 50 mCi with iodine 131 followed by external radiotherapy on the thyroid tumor residue as well as on the lymph node areas of the neck and upper mediastinum. Afterwards, the patient was put in opotherapy. The follow-up was done every 3 months in consultation with thyroglobulin, serum calcium and TSH assay between the Oncology Bergonie center in Lyon, France and the El Kindy Oncology center in Casablanca, Morocco. Cervico-thoracic CT without injection was requested every six months. Nine years later, the patient had breakthrough bleeding with pelvic pain. The gynecological examination revealed a polyp in the cervix. Pelvic MRI showed heterogeneous thickening with increased cervix volume, which was hypo-signal in T1 and hyper-signal in T2 with a hypo-intense peripheral fibrous border. This process infiltrated the peripheral cervical stroma and extended to the upper third of the vagina and the left parameter. The patient had had a cervical biopsy with polyp resection.

The anatomo-pathological study had objectified a metastasis of (PTC) at the polyp level. The morphological aspect was compatible with papillary carcinoma in its vesicular variant. Immunohistochemistry, done in Morocco and controlled in France, showed a net marking by the TTF1 and antithyroglobulin, thus confirming the thyroid origin. The thyroglobulin assay was 101 µmg/ml and the TSH assay was 0.096 µU/ml. The

iodine-131 scintigraphy was normal. A total colohysterectomy with pelvic lymphadenectomy was then performed, followed by suppressive opotherapy with 225 µg/day of thyroxine and treatment with iodine-131. A first administration of 100 mCi of Iodine-131 was performed three months after surgery. The biological assessment this time showed a clear increase in thyroglobulin to 4050 µmg/ml. During scintigraphic scanning, intense fixation was noted in relation to the dorsal spine D2 and left sacral fin, clear fixation at the thyroid gland, two foci in the skull and one in the liver. These lesions were found on brain MRI and on non-injected cervico-thoraco-abdominopelvic CT. The patient had palliative radiotherapy on the total brain and sacral fin at a dose of 30 Gy in 10 sessions of 3 Gy. Subsequently, over a period of 39 months, the patient received ten other radioiodine therapy cures at a dose of 100 mCi. The evolution was marked by a disappearance of the different metastatic foci on scanning scintigraphy and a decrease in thyroglobulin to 157 µmg/ml and TSH to 13 µU/ml. Despite a radiofrequency session, liver damage had continued to progress. The death occurred after an overall survival of 147 months in a chart of major asthenia and cardiovascular disorders.

DISCUSSION

In the PTC, distant metastases are observed in only 3.5 to 3.8% of cases. They are more frequent in vesicular carcinoma and are seen in 16.4% to 20% of cases [2,3]. The distant metastases of papillary carcinoma are mainly pulmonary and bony [5,6]. Other locations are much rarer (brain, mediastinum, adrenal, etc.), observed in 10% of cases, and are usually associated with bone or lung metastases [1]. Cervical metastasis has never been described in the literature. The time between initial diagnosis and the onset of metastases is very long, reaching several decades [4]. It is 9 years for our patient.

The risk of metastases depends on several factors: age less than 16 years or over 45 years, the existence of high cylindrical cells and sclerosis in histology [7,8]. Tumor volume, capsular invasion and the existence of lymph node metastases from the outset are also considered to be elements of poor prognosis [9]. Our patient was 43 years old at the time of the first thyroidectomy. The surgery is completed by hormone replacement in order to compensate for the induced hypothyroidism and to slow down TSH (Thyroid stimulating hormone) as much as possible since it can influence the growth of residual tumor cells. In high-risk papillary carcinoma, this controlled suppression of TSH is associated with increased progression free survival [10]. For our patient the neck dissection was not done, the local progression was fast and the tumor size was 2x 2.4 cm^2. We assume that it was of high risk and that radioactive iodine treatment was indicated as emblematic.

Indeed, iodine-131 and suppressive opotherapy are complementary to the surgical treatment of thyroid cancer and these metastases. Scintigraphic scanning with iodine-131 and thyroglobulin assay are the key elements of subsequent monitoring [7]. For our patient, after the 4 cures of radioactive iodine, the Tg level remained above 100 µmg/ml, which predicted the appearance of metastases.

In addition, external radiotherapy has little place in the therapeutic arsenal for thyroid cancer except for diseases refractory to radioiodine therapy [10]. This was the case for our patient. Ten-year survival in patients with papillary carcinoma of the non-metastatic thyroid is approximately 80% to 95% [7]. As soon as distant metastases appear, there is a considerable decrease in the survival rate [5]. After surgical treatment of distant metastasis, overall survival at 6 years is 50% [3]. For our patient despite the radical surgery, the 11 treatments of radioiodine therapy and suppressive opotherapy for the disease progressed and the death occurred 54 months after the discovery of metastasis in the cervix.

CONCLUSION

The presence of metastases in the cervix of thyroid carcinoma is exceptional. Its management is based on surgery, radioiodine therapy and suppressive opotherapy. It is of pejorative prognosis. Reflection on a therapeutic strategy is therefore necessary.

REFERENCES

1. NOGUCHI M, ISHIDA T, TAJIRI K, FUJII H, MIYAZAKI I. Regional lymph node metastases in well-differentiated thyroid carcinoma. The journal of the Japanese Practical Surgeon Society. 1987 Mar 25;48(3):295-9.
2. Bakheet SM, Powe J, Hammami MM, Amin TM, Akhtar M, Ahmed M. Isolated porta hepatis metastasis of papillary thyroid cancer. Journal of Nuclear Medicine. 1996 Jun 1;37:993-4.
3. Dequanter D, Abdoulaye D, Lothaire P, Gebhart M, Andry G. Métastase pelvienne isolée d'un cancer de la thyroïde.
4. Aïssaoui R, Turki Z, Achiche A, Balti MH, Slama CB, Zbiba M. Métastase surrénalienne d'un cancer papillaire de la thyroïde. InAnnales d'endocrinologie 2006 Sep 1 (Vol. 67, No. 4, pp. 364-367). Elsevier Masson.
5. Leger AF. Métastases à distance des cancers thyroïdiens différenciés. Diagnostic par l'iode 131 (I 131) et traitement. InAnnales d'endocrinologie 1995 (Vol. 56, No. 3, pp. 205-208). Masson.
6. Reed Larsen P, Terry F, Davies, Land D. The thyroid gland, Thyroid neoplasma and Papillary thyroid carcinoma. In: Williams text book of endocrinology, Jean D Wilson, MD, Daniel W Foster, MD, Henry M Kronenberg, MD, Reed Larsen P, MD. W B Saunders Company,

Philadelphia – London – Toronto – Montreal – Sydney – Tokyo. 9eme Ed. pp: 389-515.

7. Shaha AR, Shah JP, Loree TR. Differentiated thyroid cancer presenting initially with distant metastasis. The American journal of surgery. 1997 Nov 1;174(5):474-6.
8. Shlam Berger M J. Papillary and follicular thyroid cancer. N Engl J Med 1998 ; 338 : 7-306.
9. El Khiati R, Ouaissi L, Rouadi S, Abada R, Mahtar M, Roubal M, Janah A, Essaadi M, Kadiri F. Metastase axillaire d'un carcinome papillaire de la thyroïde: à propos d'un cas. Pan African Medical Journal. 2014;16(1).
10. Krahenbuhl T, Portmann L, Anchisi S. Cancers différenciés de la thyroïde: prise en charge et place des nouvelles thérapies ciblées. Revue médicale suisse. 2012;8(342):1112-27.