

Original Research Paper

Oncology

# A CASE OF METASTATIC UTERINE CERVICAL CARCINOMA IN THE HEART

Leonardo David Villacrés		MD. Medical Oncology fellow, "Universidad Central del Ecuador"
Mery Acuña*		Medical resident at "Hospital oncologico Gral. Solon Espinosa Ayala" Quito-Ecuador *Corresponding Author
Alonso Velásquez		General Practitioner
Virginia lles Cuasqui		Medical resident at "Hospital de la Policía N°1" Quito-Ecuador
ABSTRACT Cardiac metastases are rare entities dependent of cervix, but even if this progression corresponds to endocardium which represents a incidence of 6.8% of 1.6 to 8% of all heart metastases, reported in cases of cardiac cancer with		

metastases, it is lower regarding location in atrial chambers.

Patient of 39 year old diagnosed with early cervical cancer with metastatic progression to left atrium is reported.

This case was developed after clinical examination of a patient who presented recurrent cardiac syncope, particularly electrocardiographic examination, has not been documented cardiac treatment before progression; however we focus on the primary clinical diagnosis and palliative treatment early.

KEYWORDS : Cancer, cervix, metastases, heart, syncope

## Introduction

The most common carcinomas associated with cardiac metastasis are lung, breast, melanoma and lymphoma.(1,2)

Classically there are 4 metastatic pathways to heart progression : (1) retrograde lymphatic spread, (2) direct extension from the adjacent viscera, (3) hematogenous spread, and (4) transvenous extension through the vena cava into the right side chambers (3)

It is necessary to take into account that pericardial invasion is more frequent whereas invasion to myocardium and endocardium are extremely rare.

In patients with cervical cancer, the most common sites of extra pelvic metastases are lungs, bones, and jugular and supraclavicular lymph nodes. Cardiac metastases comprise about 1.6% to 8% .(1,24,5) Metastases to the heart comprise 59.8% epicardium, 30.4% myocardium, and 6.8% endocardium.

We have to report a case of cervical cancer, unknown clinical stage plus progression and metastasis to the left atrium (AI)

Approximately 80% of metastases are to right cavities, attributed to the role of the pulmonary circulation and the slow flow to the right cavities.

Electrocardiographic alterations in this type of patient are rare, speaking in the few cases reported depression of segment S-T or inversion of waveT. (6)

## **CASE REPORT**

A 39-year-old patient diagnosed in 2009 with Cervical Cancer, an unknown clinical stage who underwent surgery outside the institution performing a radical hysterectomy; lymphadenectomy and enterolysis.

He attended the institution (SOLCA) 6 months after surgery and the physical examination showed an irregular hard mass of 5 cm in the vaginal stump, whose histopathological report (HP) was: keratinizing cell carcinoma with a body TAC that reported a lesion at the level of vaginal stump. For which he received cisplatin plus concomitant radiotherapy until April 2010.

to IESS (Ecuadorian Institute of Social Security) where they perform liver upper right lobectomy that reported keratinizing cell carcinoma; Computed Tomography (CT) reports unfavorable evolution by presenting cervical and mediastinal metastatic lymph nodes, right pleural effusion; laminar pericardial effusion without local activity being appreciated, for the images described, he received 6 cycles of Paclitaxel / Carboplatin Chemotherapy until November 2017, complete response.

Patient comes 8 months after treatment for presenting recurrent episodes of Syncope accompanied by hemoptysis and precordial pain, EKG reports deviation of the right axis 120°, negative T wave in V4, and can not be appreciated P wave.



The cardiac enzymes were negative, echocardiogram reports, severe pulmonary hypertension 71 to 76 mmHg, severe stenosis of pulmonary branches. Mild right atrial dilatation. Left atrial mass compatible with metastasis whose visualization improves with transesophageal echocardiography. Ejection fraction: 70%, laminar pericardial effusion.



\*AD right atrium, AI left atrium, VD right ventricle, VI left ventricle Mts metastases

The patient after treatment leaves the institution, going in July 2017

Chest TAC reports, mediastinal metastatic lesion that extends from

### VOLUME-8, ISSUE-1, JANUARY-2019 • PRINT ISSN No 2277 - 8160

the left tracheal region, wraps the carina and mainly the left bronchus, infiltrates the right and left atria, comes into intimate contact with the esophagus without to be able to determine a definition plane with it. It measures  $9.0 \times 6.4 \times 5.7$ cm. Determines partial obliteration of the left main bronchus. Defect of hypodense filling in left atrium of  $3 \times 2.6$  cm. the patient went on to manage palliative care when presenting dyspnea, a karnofsky 40 and a PPS of 30, the patient died 60 days after the metastatic diagnosis was made at this level.



#### **DISCUSSION.**

Cardiac metastases are rare and infrequent due to the rapid movements of the heart secondary to the cardiac pumping, (2,3) in the present case after having known the 4 metastatic progression pathways at this level, 2 possible causes are considered. Directly by adjacent viscus, by pulmonary and mediastinal progression, as well as the presence of pericardial effusion and finally by hematogenous expansion through the pulmonary veins. (1,2)

In context with the case presented and its clinic, it should be emphasized that Cardiac syncope occurs in 23% of cases, being the second most frequent cause. (7-8) with a particular clinic that is abrupt and transient loss of consciousness associated with the absence of postural tone, followed by a complete and usually rapid spontaneous recovery.

In patients with syncope, the electrocardiogram is a primary test for its diagnosis, presenting varied alterations suggestive of the cause of arrhythmia. In the present case, the presence of extrasystoles was evident, T-wave inversion in shunt V4 and a ST-segment underside pattern in V1. (9)

As an additional examination an echocardiogram was requested in which a large mass occupying the left atrium, this location did not allow a more classical symptomatology such as bradycardia or tachycardia present in the right cavity, an additional symptom that brought this location was dyspnea, and chest pain.

The treatment was aimed at alleviating discomfort based on opioids and corticosteroids, since no treatment has been described before this progression and biopsies are usually post mortem.

#### CONCLUSION

The diagnosis of cardiac metastasis was made after repeated syncope symptoms that were later accompanied by chest pain; the tumor within the left atrial cavity must have continued to grow until inducing cardiac tamponade. In the face of a not very frequent clinic, such as cardiac syncope, we must think as a small possibility of cardiac metastatic progression and perhaps alleviate and work with the family in the face of this problem.

#### REFERENCE

- Iwaki T, Kanaya H, Namura M, Ikeda M, Uno Y, Terashima N, et al. Right ventricular metastasis from a primary cervical carcinoma. Jpn Circ J. 2001;65(8):761–3.
- Muramatsu T, Tsukada H, Ikeda M. A Case of Metastatic Uterine Cervical Squamous Cell Carcinoma in the Right Atrium. 2013;38(1):42–5.
- Byun SW, Park ST, Ki EY, Song H, Hong SH, Park JS. Intracardiac metastasis from known cervical cancer: a case report and literature review. World J Surg Oncol. World Journal of Surgical Oncology; 2013;11(1):107.
- Webster JH, Pickren JW. Metastasis t o organs in carcinoma of the uterine cervix. Am Cancer Soc. 1967;21(3):434–9.
- Schawkat K, Hoksch B, Schwerzmann M, Puig S, Klink T. Diagnosis of cardiac metastasis from cervical cancer in a 33-year-old patient using multimodal imaging studies: a case report and literature review. Acta Radiol short reports. 2014;3(8):2047981614530287.

- Berge T, Sievers J. Myocardial metastases. A pathological and electrocardiographic study. Br Heart J. 1968;30(3):383.
- Linzer M, Yang EH, Estes NA 3rd, et al. Diagnosing syncope. Part 1: Value of history, physical examination, and electrocardiography. Clinical Efficacy Assessment Project of the American College of Physicians. Ann Intern Med 1997; 126:989.
- Olshansky B, Mazuz M, Martins JB. Significance of inducible tachycardia in patients with syncope of unknown origin: a long-term follow-up. J Am Coll Cardiol 1985; 5:216.
- Brignole M, Menozzi C, Moya A, et al. Mechanism of syncope in patients with bundle branch block and negative electrophysiological test. Circulation 2001; 104:2045.