



## OVARIC TUMOR IN AN ADOLESCENT PATIENT WITH A PRIOR DIAGNOSIS OF LEUKEMIA: PRESENTATION OF A CLINICAL CASE

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### ABSTRACT

**Objectives:** To describe the diagnosis, treatment and adequate procedure of ovarian tumor in pediatric cancer patient.

**Method:** A retrospective study was carried out in a pediatric oncological patient (AML) with a dependent tumor of the right ovary, performing clinical-surgical treatment.

**Case:** A 13-year-old girl diagnosed with Acute Myeloid Leukemia with 2 cycles of chemotherapy. She presented a pelvic tumor and fluid and electrolyte imbalance who underwent clinical compensation and exploratory laparotomy, showing a large tumor dependent on the right ovary with evident torsion of the ovary; performing tumor exeresis with trans-surgical examination and negative definitive pathological result for malignancy, being able to continue treatment for its known primary.

**Conclusion:** There is very little evidence of a pediatric cancer patient undergoing chemotherapy who presented an ovarian-dependent tumor that was resolved by tumor exeresis, which turned out not to be dependent on a known primary or second primary; but an accidental finding product of ischemia and torsion necrosis of the organ.

The expertise of the medical staff is important with an adequate assessment to properly direct the procedure to be performed for both clinical and surgical diagnosis and treatment.

**KEYWORDS :** leukemia, ovarian, torsion.

### INTRODUCTION

Ovarian tumors usually present at any age, their occurrence in childhood and adolescence constitutes a rare clinical situation compared to adulthood.

The incidence of ovarian lesions in pediatric patients is unknown; however, it is estimated 1-2 cases per 100,000 girls per year. The age of diagnosis has two incidence peaks: 8-9 years and 13-17 years of age.

It is also important to point out the non-existent literature on ovarian tumors (whether malignant or non-malignant) in pediatric patients with an established primary cancer such as Leukemia.

Thus, for treatment and prognostic purposes it is essential to establish whether the presence of the tumor is due to a metastasis of the primary diagnosis or a second primary in the case of being malignant, or simply due to a benign pathology.

### METHODOLOGY

A retrospective study was carried out in a pediatric cancer

patient (Leukemia) with a finding of a pelvic tumor dependent on the right ovary, who underwent clinical-surgical treatment. The information obtained rests in the Word and Image computer system of those who carried out the study.

### CLINICAL CASE PRESENTATION

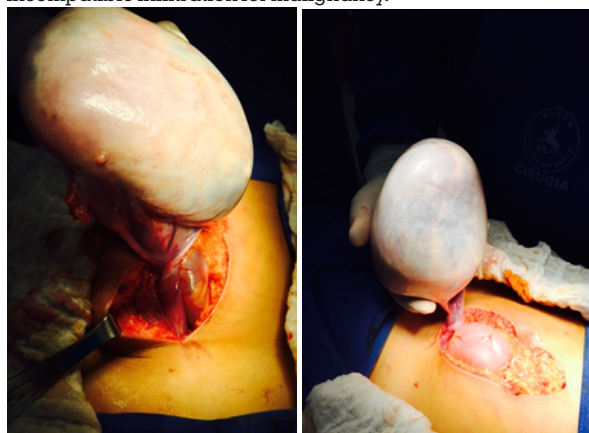
A 13-year-old female patient who was confirmed with Acute Myeloid Leukemia, who has already received 2 cycles of chemotherapy treatment.

On admission for her third cycle of chemotherapy after controls and authorization for the same by outpatient consultation, the patient presented abdominal pain and vomiting of food content on 2 occasions.

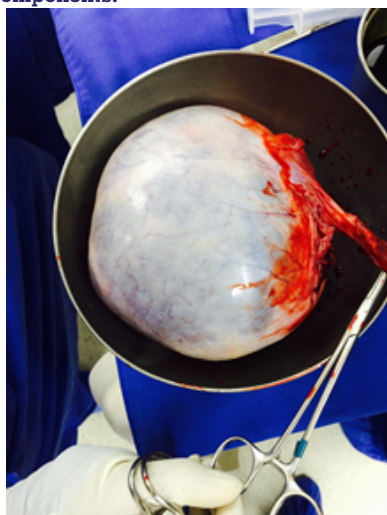
Laboratory tests were requested showing hydro-electrolyte alteration (hypokalemia and hyponatremia) for which compensation was initiated. Due to persistence of abdominal pain, a consultation was requested from the Pediatric Oncological Surgery Service who, upon performing a thorough physical examination, palpated a tumor lesion at

the level of the pelvic fossa requesting Abdominal-pelvic Computed Axial Tomography where a tumor lesion dependent on the right ovary was evidenced extending from L3 to pelvic hollow. Deciding to perform laparotomy surgery but due to the hydro-electrolyte alterations that the patient was undergoing, the procedure was deferred until the adolescent was stabilized.

The next day surgery was performed, showing a large dependent tumor of the right ovary, a soft consistency, and regular edges of approximately 12 x 9 centimeters in diameter, without adhesions; in its most proximal part to the uterus with rotation of all the ligaments (uterus-ovarian) and its vascular pedicle. Tumor lesion exeresis was performed with a Negative Trans-operative Examination for malignancy, deciding to preserve adnexal structures until awaiting a definitive pathological result, which revealed extensive areas of necrosis and ischemia of ovarian tissue, without signs of incompatible infiltration for malignancy.



**Image 1 - Image 2: Right Ovary Tumor with Torsion of its fixation components.**



**Image 3: Right Ovarian Tumor Removed**

Patient had a satisfactory post-surgical recovery and was able to continue with the Acute Myeloid Leukemia scheme.

## DISCUSSION

Pediatric ovarian tumors are quite rare, barely accounting for 1 to 5% of all childhood tumors, and it is argued that the percentage of malignancy is in older girls.

Information in the literature on ovarian tumors in pediatric patients with a previous primary oncological diagnosis is almost null.

Particularly in the exposed case, the ovarian tumor was

benign as a result of an ovarian torsion, which was resolved surgically and with a good post-surgical evolution.

It could be considered a chance finding, which did not result from metastasis due to infiltration and progression of the oncological diagnosis of our patient and which will not interfere with the patient's chemotherapy treatment and obviously does not worsen her prognosis.

## CONCLUSION

We have presented an unusual case of a pediatric cancer patient with a diagnosis of leukemia who has already received 2 cycles of chemotherapy treatment; She presented a tumor at the pelvic level dependent on the right ovary, requiring surgical treatment in which an ovarian tumor was confirmed, probably caused by torsion, performing exeresis of the tumor.

Although it is true in the medical literature, it is detailed that in cases of ovarian torsion the mandatory thing is to resolve the torsion and try to save the organ; However, the antecedent of suffering from an oncological disease such as AML forced us to carry out the removal of the affected ovary to carry out the necessary pathological study and rule out that it is a metastatic infiltration of its known primary or second primary, thus helping not to worsen the disease. Prognosis, survival, even as an aid to its treatment.

The expertise of the medical staff is important with an adequate assessment to properly direct the procedure to be performed for both clinical and surgical diagnosis and treatment.

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