CASE REPORT

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NON-HODGKIN LYMPHOMA IN A CHILD: A CASE REPORT

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ABSTRACT

INTRODUCTION: Lymphomas are neoplasms of the immune system originating from B, T, or Natural Killer cells that lead to the appearance of tumor masses. They can be classified as Hodgkin and Non-Hodgkin. It is a general way, however, being more common in children and presents a distinct way of distinct diagnoses.

CASE REPORT: In this report, the objective is related to the case of a three-year-old child affected by ovarian Non-Hodgkin's Lymphoma. And show the importance of early diagnosis concerning treatment.

DISCUSSION: A variety of different ovarian diagnoses are observed when there is an extensive treatment of pathologies. Consequently, there are imaging tests capable of providing an adequate type of diagnosis. The importance of an accurate diagnosis, ideally, is linked early to a good prognosis and successful cure.

CONCLUSION: The evaluation of early diagnosis reflects a response to treatment, since behavioral behaviors may be unexpected, relating to their aggressiveness and response to the treatment of neoplasms.

KEYWORDS: LYMPHOMA, PEDIATRIC, NON-HODGKIN, OVARIAN NEOPLASM

INTRODUCTION

Hodgkin's lymphoma (HL) is a type of cancer that originates in the lymphatic system, a set made up of organs, lymph nodes or nodes, and tissues that produce the cells responsible for immunity and vessels that carry these cells through the body. [1]

Its main characteristic is to proliferate in an orderly way, from one group of lymph nodes to another group, through the lymphatic vessels. The oncogenesis of Hodgkin's lymphoma arises when a lymphocyte, most often a type B, turns into a malignant cell capable of multiplying uncontrollably, identical cells, spreading throughout the individual's body. [1]

Non-Hodgkin's lymphoma (NHL) is a type of cancer that originates in the cells of the lymphatic system and spreads in an unorganized manner. There are over 20 different types of NHL.

The lymphatic system is part of the immune system, which helps the body fight disease. Because lymphatic tissue is found throughout the body, lymphoma can start anywhere. It can occur in children, adolescents and adults. Overall, NHL becomes more common as people age. [1]

These types of lymphoma can occur in any age group, being more common among adolescents and young adults, aged 15 to 29 years, in adults between 30 and 33 years and in the elderly aged 75 years and over. However, this disease is more prevalent in men than in women.

CASE REPORT

MSC three-year-old patient has a history of chronic constipation, with a worsening of the clinical picture five days before the date of admission. Imaging tests were requested, including: X-ray of the abdomen, ultrasound of the total abdomen, tomography of the abdomen and magnetic resonance of the abdomen, for better elucidation of the case (Figures 1-5).

In view of the clinical picture and complementary exams, an ovarian mass was found that, due to its characteristics, would need to be referred for surgery and the excision of the lesion should be performed and the specimen sent for biopsy (figure 6).

After the anatomopathological results, it was found that the ovarian mass was a diffuse malignant non-Hodgkin's lymphoma of small non cleaved cells.

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Figure 1 – Complementary exams: X-ray of the total abdomen.

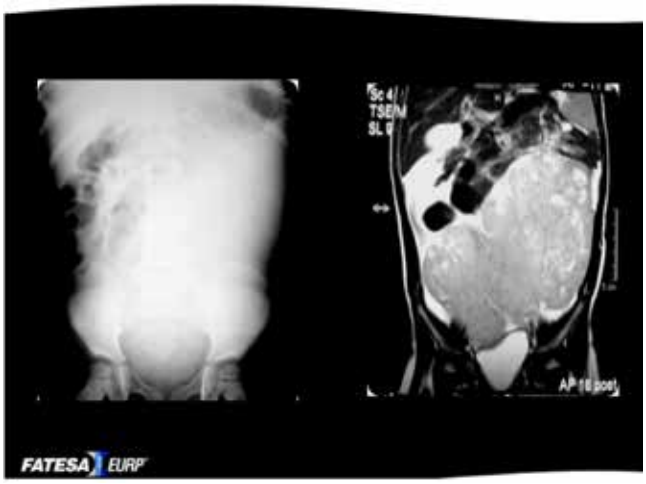

Figure 2 – Complementary exams: Comparison of abdominal X-ray with abdominal tomography.

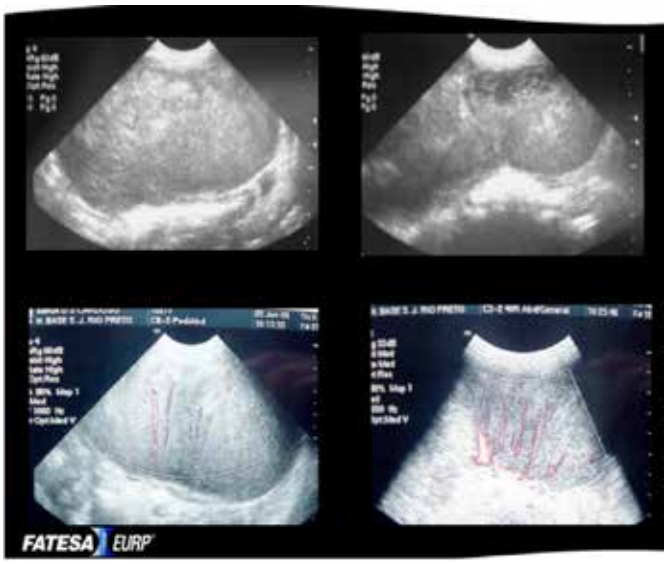

Figure 3 – Complementary exams: total abdomen ultrasound.

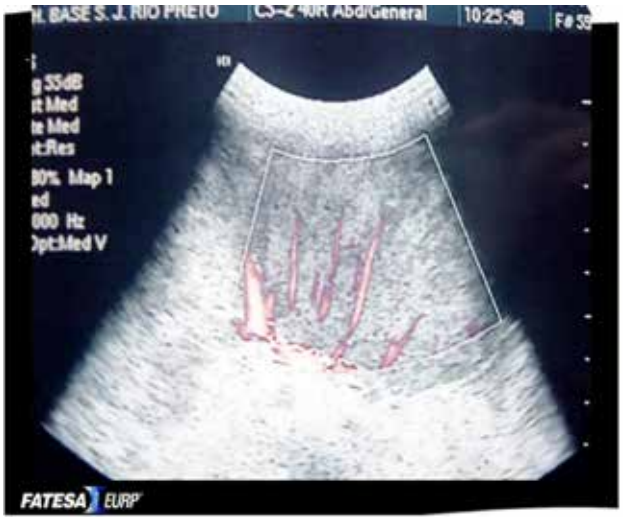

Figure 4 – Complementary tests: use of the Doppler study in abdominal ultrasound.

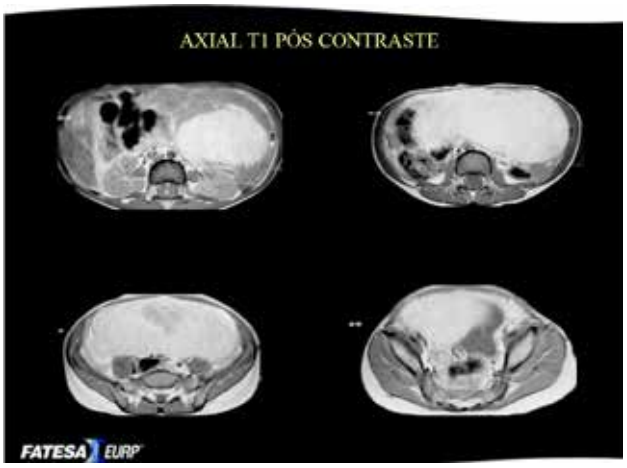

Figure 5 – Complementary tests: the use of magnetic resonance in the evaluation of ovarian mass.

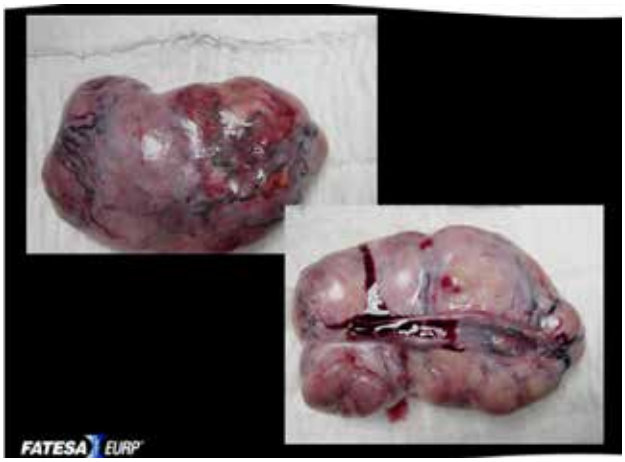

Figure 6 – Anatomopathological: Diffuse malignant non-Hodgkin lymphoma of small non cleaved cells.

DISCUSSION

Regarding the case, we can highlight the different differential diagnoses of ovarian masses in childhood, a topic of paramount importance for obtaining an early diagnosis and performing an appropriate treatment.

Among the differential diagnoses, the following stand out: benign ovarian teratomas, dysgerminomas, embryonal carcinoma, endodermal sinus tumor, ovarian epithelial tumors, theca granulosa cell tumors, arrhenoblastoma, gonadoblastoma and acute leukemia/lymphoma. [3]

Differentiating from other pathologies, ovarian lymphoma, out of 2,680 ovarian neoplasms, only 1.5% were diagnosed in children. In two series of 541 ovarian neoplasms in children, only four lymphomas were diagnosed. In a series of 42 ovarian lymphomas 38% were children. Despite being a relatively rare pathology, its frequency in childhood is something remarkable and worthy of attention. [3]

Its presentation as a primary neoplasm is two cases in 12,447 children. And its most common initial clinical presentation is as an occult nodal neoplasm, in which the primary site is unknown. And later, it manifests as a disseminated systemic lymphoma. [3-4]

In view of the clinical findings, the following are noted: palpable mass with or without pain in 67% of cases, vaginal bleeding, amenorrhea, osteoarticular pain and ascites. [3]

The following imaging findings are visible:

- Ultrasound: Hypoechoic, homogeneous and poorly vascularized lesion on Doppler study;

- Tomography: Homogeneous lesion without necrosis, hemorrhage, or significant calcifications;

- MRI: Hypointense on T1 and Hyperintense on T2, medium to moderate enhancement.

It manifests bilaterally in 55% of cases, presents as a solid and lobulated mass, associated with foci of hemorrhage, necrosis and presence of cystic areas, with an average diameter of 15 cm, around 33%.

Among children, non-Hodgkin's lymphoma of small non cleaved cells, Burkitt or non-Burkitt, corresponds to the majority (38%).

Treatment is surgery in combination with adjuvant chemotherapy. In surgery, two factors show that the tumor did not arise in the ovary: if the ovarian involvement is bilateral and/or if there is an increase in regional lymph nodes.[4] Remembering that, for the treatment, a bilateral salpingo-oophorectomy is performed. Associated with follow-up with chemotherapy. [2]

The signs of a poor prognosis are: bilaterality, presence of systemic symptoms, non-B lymphocytic type and acute onset.

Epithelial tumors have a higher frequency, being bilateral in 33% of cases and classified in FIGO stages I and II. In 67% of cases they are in stages III and IV, these rarely occur in children. [4]

It is worth noting the greater focus and special emphasis on diagnosis in addition to therapeutic strategies. Ovarian neoplasms in children may present unexpected behaviors in relation to their aggressiveness and response to treatment, different from the adult population. This shows its relevance in the search for early diagnosis.

CONCLUSIONS

Therefore, early investigation is of paramount importance, in which there is a significant improvement, being important to evaluate staging.

It is worth noting that the notoriety of the study of ovarian masses is based on obtaining an early diagnosis of lymphoma and, thus, obtaining treatment in a timely manner. Thus, treatment success rates and better quality of life for the patient are increased.

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