IMMATURE OVARY TERATOMA: A CASE REPORT

ANA LUÍZA FLEURY LUCIANO[1], ANDRÉ MAROCCOLO DE SOUSA[1], JULLIANO MORAES SILVA[2], SEBASTIÃO ALVES PINTO[3,4], JUDAS TADEU NUNES NÓBREGA[2], JUAREZ ANTÔNIO DE SOUSA[4]

ABSTRACT

Immature ovarian teratoma consists of a tumor formed by tissues from the three germinal layers: ectoderm, mesoderm and endoderm, containing immature or embryonic structures. It is an uncommon tumor and comprises less than 1% of ovarian tumors, being the second most common germ cell tumor. This neoplasm is more common in the first three decades of a woman's life. May present with a pelvic mass, or in the form of abnormal uterine bleeding or pelvic pain. Early diagnosis associated with immediate therapy and strict follow-up are essential for a favorable long-term outcome, especially in relation to the preservation of the patient's reproductive future. The present case report presents a 24-year-old female patient with a large mass in the left ovary with omental infiltration, who was submitted to anatomopathological and immunohistochemical studies that showed an immature ovarian teratoma.

KEYWORDS: IMMATURE TERATOMA, TERATOMA, NEOPLASIA

INTRODUCTION

Ovarian teratomas are composed of germ cells from primordial cells of the ovaries. They are classified into: mature (benign), immature (malignant) and monodermal (neural tumors, struma ovarii and carcinoid tumor). The most common form is the mature teratoma, with the immature form being the second most frequent [1].

Immature teratoma consists of a tumor formed by tissues from the three germinal layers: ectoderm, mesoderm and endoderm. Contains immature or embryonic structures. It is an uncommon tumor and comprises less than 1% of ovarian tumors, being the second most common germ cell tumor. In addition, it represents between 10% and 20% of all ovarian neoplasms in women under 20 years old, with a peak between 15 and 19 years old, and 30% of the cause of death from ovarian cancer at this age. It rarely occurs in menopause [1].

Immature teratoma may present as a calcified pelvic mass, abnormal uterine bleeding, or pelvic pain. The most frequent dissemination sites are the peritoneum and retroperitoneal lymph nodes. Hematogenous spread to lungs, liver or brain is uncommon. It presents increased levels of alpha-fetoprotein in 50% of cases [2].

Immature ovarian teratomas are composed of variable amounts of immature tissues (neuroectodermal and primitive/embryonic), including, in their most primitive forms, embryoid bodies. Furthermore, they are formed by three germ layers: ectoderm, mesoderm and endoderm. This neoplasm is more common in the first three decades of a woman's life and is usually classified according to the degree of differentiation of their cells. Grade I teratoma is the best differentiated and has a slower evolution, with a lower risk of metastasis. Grade III, on the other hand, is more undifferentiated and presents a more aggressive behavior [2].

CASE REPORT

Patient Y.C.P.S., 24 years old, female, with a large mass in the left ovary with omental infiltration. Anatomopathological (Figure 1) and immunohistochemical (Figures 2, 3, 4, 5, 6 and 7) studies were performed, which resulted in the patient's diagnosis of immature ovarian teratoma. In addition, searches for tumor markers CD56 (Figure 8), S-100 (Figure 9) and Ki-67 (Figures 10 and 11) were requested.

1. PUC Goiás
2. Maternidade Aristina Cândida
3. INGOH
4. Universidade Federal de Goiás - UFG

ADDRESS
JUAREZ ANTÔNIO DE SOUSA
Rua 95, 159 setor sul Goiânia Goiás
E-mail - drjuarez@drjuarez.com.br

Figure 1 – Large mass in left ovary with omental infiltration

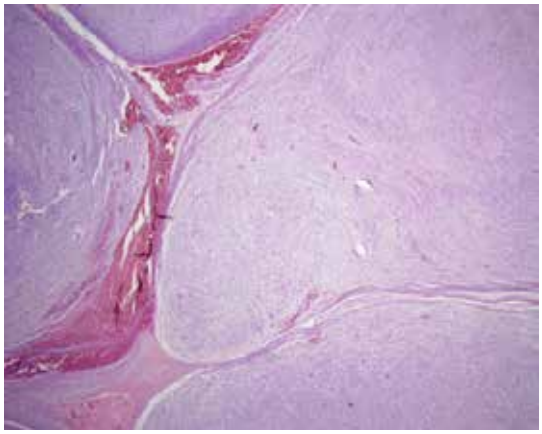

Figure 2 – Microscopic aspect of the tumor

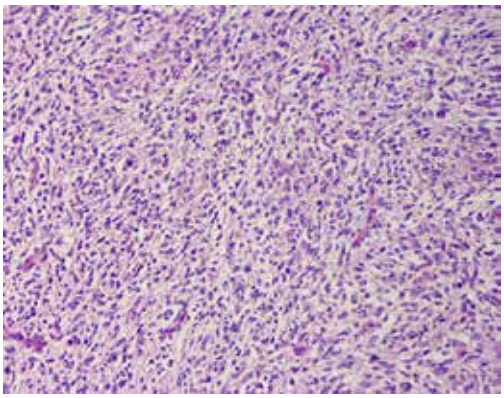

Figure 3 – Microscopic aspect of the tumor

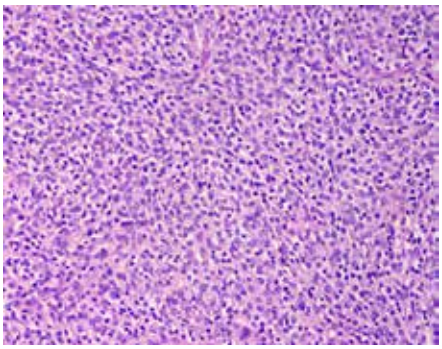

Figure 4 – Microscopic aspect of the tumor

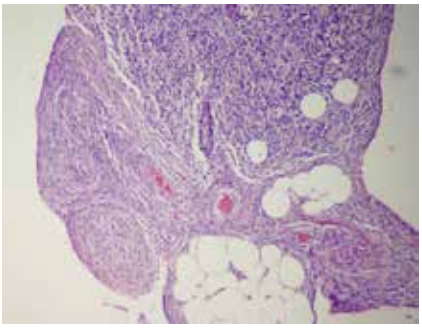

Figure 5 – Microscopic aspect of the tumor

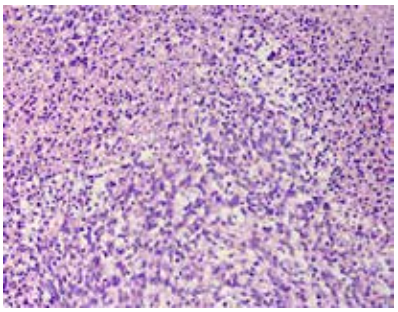

Figure 6 – Microscopic aspect of the tumor

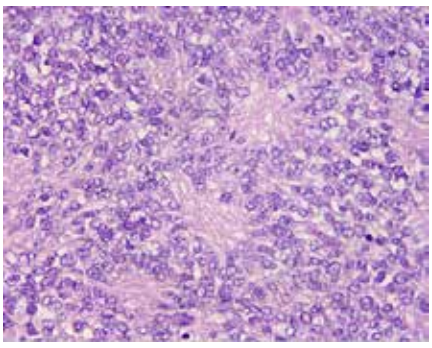

Figure 7 – Enlarged microscopic aspect of the tumor

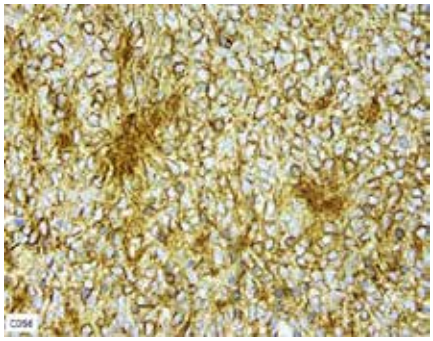

Figure 8 – Microscopic aspect of the tumor with search for CD56

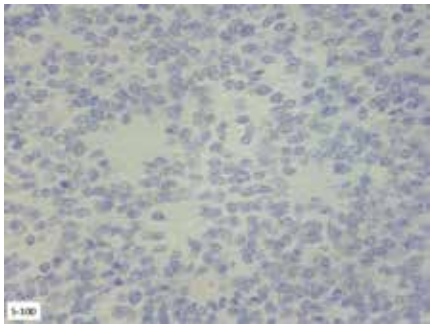

Figure 9 – Microscopic aspect of the tumor with search for S-100

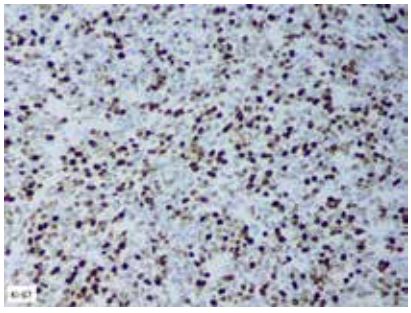

Figure 10 – Microscopic aspect of the tumor with research for Ki-67

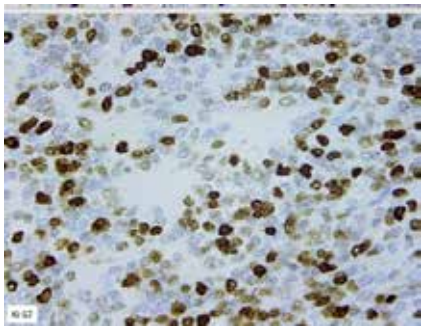

Figure 11 - Microscopic aspect of the tumor with research for Ki-67

DISCUSSION

Immature ovarian teratoma has an incidence of 35.6%, although it represents only 1% of ovarian teratomas. They appear primarily in young women, in the first two decades of life, with an average age of 18 years. However, this young age is not classified as a risk factor for progression or future recurrences [3]. Macroscopically it is characterized as unilateral, large, predominantly solid, fleshy, grayish in color and may contain cysts, hemorrhage and necrosis [1].

Despite being an uncommon tumor, it is the second most common germ cell tumor. It may present with a pelvic mass, as in the case of our patient, or in the form of abnormal uterine bleeding or pelvic pain. Diagnosis begins with detailed anamnesis and physical examination, in order to make differential diagnoses with more frequent diseases in this age group [1].

Malignant teratoma is usually classified according to the degree of differentiation of its cells. Grade I teratoma is the best differentiated and has a slower evolution, with a lower risk of metastasis. Grade III, on the other hand, is more undifferentiated and presents a more aggressive behavior [4]. The grade of the patient's tumor in question may justify the radical approach taken, to the detriment of the patient's reproductive future [1]. The surgical approach used is unilateral salpingo-oophorectomy with collection of samples from peritoneal implants, indicated for diagnosis, treatment and staging. Studies show that adjuvant treatment with chemotherapy and radiotherapy does not seem to improve the patients' prognosis [2].

Early diagnosis associated with immediate therapy and strict follow-up are essential for a favorable long-term outcome, especially in relation to the preservation of the patient's reproductive future.

CONCLUSION

The present case report presented a 24-year-old female patient with a large mass in the left ovary with omental infiltration. From the diagnosis of immature ovarian teratoma, it is important to emphasize that ovarian teratomas are composed of germ cells arising from primordial cells of the ovaries. The most common form is the mature teratoma, with the immature form being the second most frequent. Immature teratoma is usually characterized as a calcified pelvic mass, abnormal uterine bleeding, or pelvic pain. The most frequent dissemination sites are the peritoneum and retroperitoneal lymph nodes. The diagnosis of this neoplasm is carried out through detailed anamnesis and physical examination. Thus, it is recognized that early diagnosis associated with immediate therapy and strict follow-up are essential for a favorable long-term outcome, especially in relation to the preservation of the patient's reproductive future.

REFERENCES

1. Kurman RJ et al. WHO Classification of Tumours of Female Reproductive Organs. World Health Organization Classification of Tumours, p. 11–86,

2014.
2. Oliveira AB, Guedes CR. Teratoma imaturo ovariano em jovem de 12 anos. Relatos de Casos Cirúrgicos, v. 4, n. 3, 2018.
3. Comerci JT, Licciardi F, Bergh PA, Gregori C, Breen JL. Mature cystic teratoma: a clinicopathologic evaluation of 517 cases and review of the literature. Obstet Gynecol [Internet]. 1994 Jul;84(1):22–8.
4. Pinheiro P. Teratoma de Ovário: tipos, sintomas e tratamento [Internet]. MD.Saúde. Available from: https://www.mdsaude.com/ginecologia/teratoma/#Teratoma_imaturo