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## BACKGROUND / OBJECTIVES

The ovary is the most common site for primary lymphomas affecting the female genitalia.<sup>1</sup> Presentation is insidious and non-specific, but lower abdominal pain and a pelvic mass are common clinical findings. They are mostly detected incidentally.<sup>2</sup> Ovarian involvement by lymphoma may represent primary extra-nodal disease or a late disseminated malady.<sup>3</sup> Surgery and chemotherapy are standard treatment.<sup>4</sup>

## CASE REPORT

This 12-year-old girl was two years into routine follow-up after surviving ALL. She presented with a pelvic mass (Figure 1) and a CT scan identified an ovarian tumor (Figure 2). Neoadjuvant chemotherapy achieved a 50% volume reduction and she underwent surgical pediatric ovarian protocol (Figures 3). Pathology reported primary ovarian non-Hodgkin lymphoma with leukemic infiltration to Douglas pouch and pelvic peritoneum, with free fluid positive for blast cells.

She is currently stable (six months after surgery), undergoing intensified chemotherapy, and restaged to protocol BFM 90 for very high-risk disease.



FIGURE 1

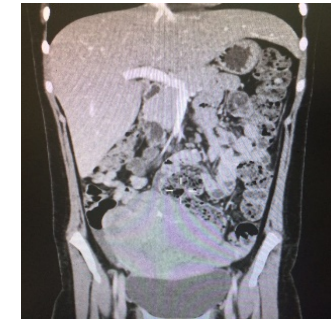


FIGURE 2

## DISCUSSION

Although primary ovarian lymphoma is rare, incidence has increased over the past decades.<sup>5</sup> Originally, its existence had been questioned by some authors, given the consideration that ovaries had no lymphoid tissue. However, recent studies have found benign lymphoid clusters and scattered lymphocytes between the stroma and ovarian follicles in more than half of normal ovaries, being possible for these lymphoid clusters to undergo malignant transformation.<sup>6</sup> Within the female genitalia, the ovary is the most frequently affected site.<sup>7</sup> A high index of suspicion is needed to detect these lesions.

## CONCLUSION

Ovarian lymphoma is a rare but well defined entity, with an increased incidence observed in recent decades. Even though lymphoma is a systemic disease, surgery confirms the diagnosis and prevents complications such as torsion, bleeding, and mass effect on pelvic organs.<sup>8</sup>



FIGURES 3

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