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Non-Hodgkin lymphoma of female genital tract: an experience from tertiary care centre

N. Gupta¹, P. Gupta¹, M. Rohilla¹, G. Prakash², P. Malhotra²

¹Departments of Cytology and Gynaecological Pathology, ²Internal Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh 160012, India

Introduction: Non-Hodgkin lymphoma (NHL) with involvement of the female genital tract (FGT) is rare. Ovarian lymphomas account for about 1.5% of all ovarian neoplasms, and diffuse large B-cell lymphoma (DLBCL) accounts for 20% of primary ovarian NHL cases. Rarely cervical, endometrial, vaginal or vulval involvement has been reported.

Objective: We present a series of ten cases of NHL with the involvement of the FGT.

Methodology: This was a retrospective study over seven years. A total of ten lymphoma cases involving the FGT were retrieved from the archives of the Department of Gynaecological Pathology, seven cases showing ovarian involvement, two cases with cervical involvement and one case with vaginal NHL. Clinical details were recorded, and the slides were retrieved. Additional immunohistochemical stains were performed for proper subtyping of NHL.

Results: Ages ranged from 14 to 72 years (mean: 44.5). Right-sided ovarian involvement was more common, and two cases showed bilateral ovarian involvement. Majority presented with abdominal discomfort, bloating and pelvic pain. The most common type of NHL was DLBCL with one case of follicular lymphoma grade 1. IHC panel comprised of CD45, CD20, CD3, CD10, CD30, CD23, BCL2, Ki-67, CD99, SALL4, OCT3/4, pan-cytokeratin, CD56, synaptophysin, inhibin and EMA. MUM1, BCL6 and CD10 were performed to apply the Hans algorithm in DLBCL cases.

Discussion: Primary lymphoma of the FGT is rare, and the diagnosis of the same is challenging. NHL in the FGT most commonly arises from the ovary and cervix. These patients may remain asymptomatic or present with abdominal symptoms or vaginal bleeding. Various differential diagnostic entities include melanoma, endometrial stromal sarcoma, neuroendocrine tumours, sex-cord stromal tumours and primitive neuroectodermal tumours. A high index of suspicion and immunohistochemistry is needed to differentiate NHL from other differential diagnostic entities.

Conclusion: DLBCL is the most common type of NHL in the FGT, most involve the ovary. Other rare lymphomas are also seen in the FGT. Immunohistochemistry helps to clinch the correct diagnosis and to exclude the close mimickers on morphology.

Keywords: female genital tract, immunohistochemistry, ovary, non-Hodgkin lymphoma

Corresponding author: Dr N Gupta, Postgraduate Institute of Medical Education and Research, Chandigarh, India
Nalini203@gmail.com

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