CASE REPORT

HIV Associated Non-Hodgkin's Lymphoma of the Ovary

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Introduction

Non-Hodgkin's lymphoma (NHL) may involve the gynecological tract, and the ovary is one of the most common anatomic site to be involved. Ovarian involvement by NHL is usually secondary, occurring as a part of systemic disease. Localized, presumably primary, NHL of the ovary is rare [1].

Although, there have been few case series of primary NHL of ovary, only one patient with AIDS-related primary ovarian lymphoma has been described in the literature [2].

Case Report

Mrs. B, a 40 year old, case of AIDS since one and half years, presented with complaints of continuous, dull aching lower abdominal pain associated with vomiting and diarrhoea since 2 weeks on 28/10/2006. Her cycles were regular and LMP was 45 days back. She was married since

25 years and her husband a known case of HIV expired 3 years back. She is para 4, living 4, all were full term vaginal deliveries, last childbirth was 20 years back. She was moderately built and nourished with BMI of 24.1 kg/m [2]. She was pale with pulse rate 78 beats per minute and blood pressure 90/60 mm of Hg. On Abdominal examination tenderness, guarding and rigidity were present all over the abdomen with a firm, mobile single mass felt up to the umbilicus. On per vaginal examination, cervical movements were tender and a firm mass was occupying the anterior fornix, lateral fornices were free and non tender. The clinical impression was either ruptured ovarian cyst or ruptured ectopic pregnancy. Laboratory investigations revealed Hb of 10 gm%, urine pregnancy test was negative. Sonography of pelvis showed a large ill defined hyperechoic tumour mass in right adnexae measuring 14 × 10 cm with moderate to gross free fluid in the abdomen & pelvis suggestive of hemoperitoneum. She was taken for emergency exploratory laparotomy on 28/10/2006. Intraoperative finding showed haemorrhagic fluid with a highly friable right ovarian mass 20 × 15 cm with ruptured capsule. The mass was adherent to the bowel. Total abdominal hysterectomy, bilateral salpingo-oophorectomy and omental biopsy was performed.

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Fig. 1 Microscopy shows tumour cells arranged in diffuse sheets interspersed by scattered reactive histiocyte imparting a starry sky pattern. In some areas tumour cells arranged in ill defined nests surrounded in areas by fibrous strands with lymphocytic infiltrate

On Histopathology the tumour being highly undifferentiated, following possibilities were thought of, anaplastic dysgerminoma or NHL diffuses large cell type (Fig. 1), hence immunohistochemistry was suggested for confirmation. Specimen was sent for further studies to another institute and report came as more likely to be NHL than dysgerminoma. Patient came for follow up on 17th post-operative day with complains of mass per abdomen. On palpation a stony hard mass of 10×8 cm occupying right iliac fossa was noted. USG showed mixed echogenic ovarian mass in right iliac fossa of 10×9 cm. Doppler study showed increased vascularity suggestive of recurrence. Patient was referred to oncologist but refused further treatment. Patient expired 3 months after the surgery.

Discussion

Primary (localized) NHL of the ovary is rare. Such a tumour is classified according to the World Health Organization Classification as follows: diffuse large B-cell lymphoma, follicular lymphoma, Burkitt lymphoma, T-cell anaplastic large cell lymphoma and precursor T-lymphoblastic lymphoma. Diffuse large B-cell lymphoma appears

to be the most common type of primary ovarian NHL. Most patients with primary ovarian NHL present with symptoms attributable to an ovarian mass, but in a subset of patients ovarian NHL may be detected incidentally. Pelvic complaints are the most common symptoms. Bilaterality is infrequent, and neoplasms may be microscopic or extremely large. The histogenesis of primary ovarian NHL is perplexing. In normal ovaries, lymphocytes of B-cell and T-cell lineage are present within “cortical granulomas”, and rare lymphocytes are dispersed throughout the ovarian stroma and within ovarian follicles and corpora lutea. The incidental neoplasms may arise in unusual settings, such as within the wall of an ovarian endometriotic cyst, or associated with a mature cystic teratoma or serous borderline tumour. Histologically similar neoplasms that should be differentiated from NHL involving the ovary include adult granulosa cell tumour, dysgerminoma, small cell carcinoma of hypercalcemic type, and granulocytic sarcoma. These may be distinguished from primary ovarian NHL by considering the clinical information, histologic features, and immunohistochemical profiles [1].

Only one case of HIV infected female with primary ovarian NHL was reported who did not receive standard NHL combination chemotherapy and standard HIV highly active antiretroviral therapy (HAART) and succumbed to death within 7 months after diagnosis [2]. Malignant lymphoid cells in ovary may occur either as primary or as secondary manifestation of disseminated occult/known disease [3].

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