Management of Relapsed Hodgkin Lymphoma During the Second Trimester of Pregnancy: Case Report

Gebeliğin İkinci Trimesterinde Nüks Eden Hodgkin Lenfomanın Yönetimi: Olgu Sunumu

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To the Editor,

Hodgkin lymphoma (HL) is the most common hematological malignancy in pregnancy with an incidence among pregnant women of 1/1000 to 1/3000 [1]. Its course in pregnancy is similar to that seen among non-pregnant patients [2]. However, management of these cases poses medical and ethical challenges when there are indications for treatment. In the literature, there are different suggested treatment protocols upon the initial diagnosis of these patients. Doxorubicin, bleomycin, vinblastine, and dacarbazine (ABVD) is the most commonly used treatment option in first-line therapy [3]. Involved-field radiotherapy can also be given as a first-line treatment option in suitable early-stage cases, but it is generally not preferred because it may harm the fetus. Meanwhile, data on second-line therapies for relapsed patients are limited [4,5].

A 27-year-old female patient received six cycles of ABVD with a diagnosis of nodular sclerosing HL. Positron emission tomography-computerized tomography (PET-CT) scans after two and six cycles were negative. Twelve months after the completion of the initial therapy, she presented with a complaint of dyspnea at 21 weeks of pregnancy with twins. A lesion of 13.5x9x16.5 cm extending from the anterior mediastinum to the left hemithorax and pleural effusion of 11 cm in the left hemithorax were detected by computerized tomography (CT) (Figure 1). Biopsy of the mediastinal mass resulted in a diagnosis of nodular sclerosing HL. Ann Arbor staging could not be done because we could not perform abdomen CT, but the case was at least bulky stage IIA. Ifosfamide, carboplatin, and etoposide (ICE) chemotherapy was given to the patient. Due to the onset of preterm labor after two cycles of ICE treatment, a cesarean delivery was performed at 28+5 weeks of pregnancy. No problems were detected in the infants beyond the problems caused by prematurity. The patient had a negative PET-CT scan with a Deauville score of 1 after two further cycles of ICE treatment (Figure 2). Stem cell mobilization was performed with the third cycle of ICE. Autologous stem cell transplantation was performed with the carmustine, etoposide, cytarabine, and melphalan (BEAM) preparation regimen. The patient achieved complete remission in the 6th month of follow-up after the transplant and the babies were alive and healthy at 9 months.

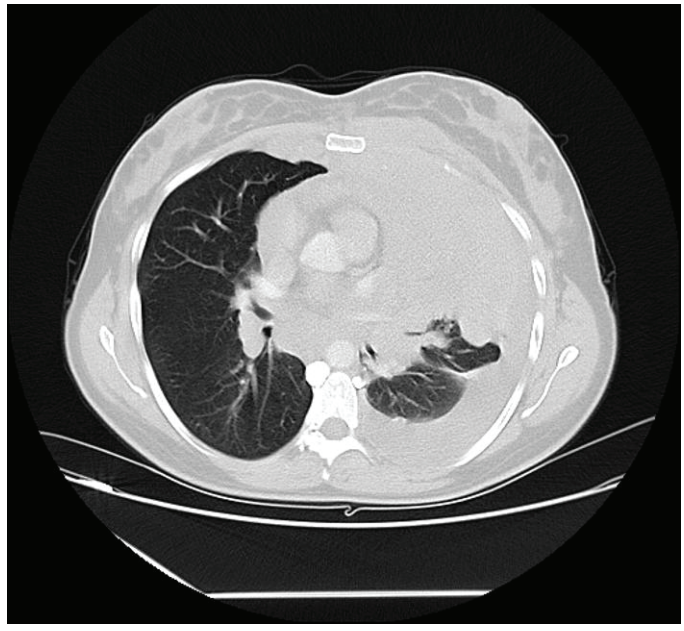

Figure 1. Computerized tomography scan at the time of diagnosis.

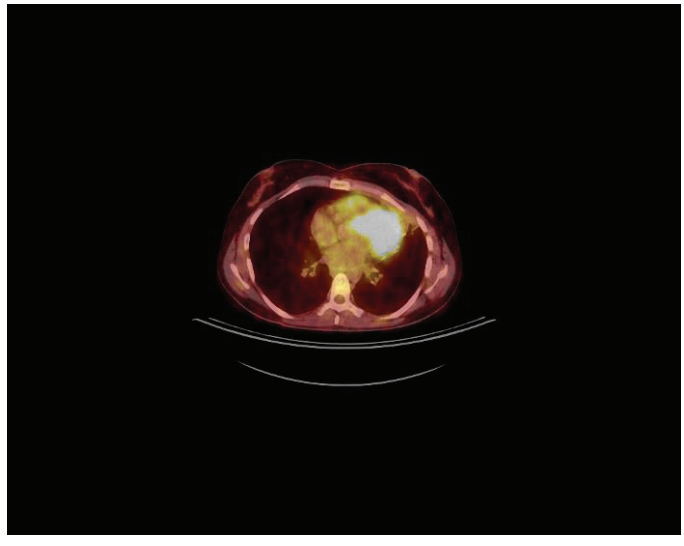

Figure 2. Positron emission tomography scan after treatment.

Cases of relapsed HL during pregnancy are very rare. Therefore, limited data are available on salvage chemotherapy combinations in HL during pregnancy. Considering that ABVD is relatively safe in the second trimester, ABVD re-treatment may be considered, especially if the previous exposure involved two to four courses and relapse occurred at least 6 months after completing the first-line therapy [6]. Attention should be paid to not exceeding the cumulative toxic dose of doxorubicin. Our patient relapsed 12 months after the first-line therapy, but disease progression was very fast. Therefore, we considered dexamethasone, cisplatin, and cytarabine (DHAP) and ICE as salvage treatments. Some studies have shown that platinum and gemcitabine-based regimens can be used after the first trimester [6,7]. Based on data for other cancers, we found positive reports about etoposide, doxorubicin, and ifosfamide [8,9]. A case series of pregnant patients with melanoma receiving immunotherapy showed increased incidence of obstetric complications such as prematurity and low birth weight, and administration of these regimens is not recommended during gestation [10]. Brentuximab vedotin is also not recommended as it is teratogenic based on animal studies [11].

Our patient relapsed in the 12th month after completion of the initial therapy. This might be considered a high-risk feature. However, since there were no other high-risk features and the patient did not want to receive further treatment, we did not prescribe brentuximab maintenance.

Low birth weight and preterm delivery have been reported in cases of HL patients receiving chemotherapy during pregnancy [7]. Our patient also gave birth prematurely, but considering that she was pregnant with twins, we cannot say that it was due to chemotherapy alone.

Here we have reported a patient with a twin pregnancy who experienced relapsed HL during the second trimester and was treated with ICE salvage chemotherapy without any serious fetal or pregnancy complications.

Keywords: Hodgkin lymphoma, Relapse, Pregnancy, Chemotherapy

Anahtar Sözcükler: Hodgkin lenfoma, Relaps, Gebelik, Kemoterapi

Ethics

Informed Consent: Obtained.

Authorship Contributions

Concept: F.Y., N.A., N.O.D., H.Ü.T., E.G.; Design: F.Y., N.A., N.O.D., H.Ü.T., E.G.; Data Collection or Processing: F.Y., N.A., N.O.D., H.Ü.T., E.G.; Analysis or Interpretation: F.Y., N.A., N.O.D., H.Ü.T., E.G.; Literature Search: F.Y., N.A., N.O.D., H.Ü.T., E.G.; Writing: F.Y., N.A., N.O.D., H.Ü.T., E.G.

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