Ovarian Relapse and Cutaneous Involvement in a Case of Acute Lymphoblastic Leukaemia

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A case of acute lymphoblastic leukaemia (ALL) presenting with an intraspinal mass was described by Hwang et al. [1] in this journal, thus adding another unusual extramedullary (EM) site of relapse in this disease.

We report an ALL patient with an isolated ovarian relapse and cutaneous involvement. A 27-year-old woman was hospitalized for weight loss, pallor, fatigue, anemia and hepatosplenomegaly in May 1991. After peripheral blood smear and bone marrow examination, ALL was diagnosed. Immunophenotyping was positive with CD20, CD10 and HLA-DR (pre-B cell ALL). She achieved complete remission with chemotherapy and then central nervous system (CNS) prophylaxis was applied with radiotherapy. In July 1992, after a 13-month remission, she was re-admitted to hospital with lower abdominal pain and swelling. Abdominal ultrasonography revealed a right ovarian mass and free ascites. Laparotomy and oophorectomy were performed. On pathological examination, the ovary and peritoneum were infiltrated with blasts; at the same time, the bone marrow was in remission. Her complaints subsided with systemic chemotherapy. Four months later, a 6 × 4 cm fixed tumoral mass appeared in the left pre-tibial region, infiltrating the cutaneous and subcutaneous tissues. An excision biopsy was performed, and pathological examination showed that the lesion was also infiltrated with blasts. Immunophenotyping revealed that these cells had the same surface markers as the original clone. This time too, the bone marrow was in remission. Systemic chemotherapy and local radiotherapy were applied and the mass disappeared gradually. Two months later, the patient had a CNS relapse, again without bone marrow involvement, and died within 2 weeks.

Ovarian involvement in ALL is usually occult although it is detected in 3.2-36% of the cases at autopsy [2]. Cutaneous involvement is rare and is found in only 6% of the patients, including autopsy series [3]. Isolated EM relapse is unusual [4]. In such a condition, it is recommended to give systemic chemotherapy in addition to local therapy. In ALL, this kind of relapse usually occurs in 'sanctuary sites' like the testes and CNS [5]. Isolated ovarian relapse is an extraordinary finding and is reported in the literature as single case reports [2]. Skin involvement in ALL usually occurs when bone marrow and peripheral blood are full of blasts, and the

malignant clone is almost always of T-cell origin [6]. In our patient, the interesting points were that although it was a case of ALL with cutaneous involvement, the leukaemic clone was of pre-B origin and there was a prolonged bone marrow remission despite the EM relapses.

References

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