Clinical and morphological features of ovarian pure dysgerminoma: A report of a 14 years old girl

Dysgerminoma is best known as the ovarian counterpart of seminoma of the testis. Relatively uncommon tumors, dysgerminomas account for less than 2% of all ovarian cancer. We report a case of a 14 years old girl with a large and rapidly growing unilateral ovarian dysgerminoma. Examination of the surgical specimen showed a tumor of 27 x 17 x 8 cm in size and 4800 gr. in weight. It was oval in shape with a slightly glistening fibrous capsule, soft but solid and hemorrhagic. The mass arose from the right ovary and did not invade any surrounding structures. The tumor and the ovary were torqued with its fallopian tube. Microscopic examination showed typical characteristics of ovarian dysgerminoma, with a micrometastasis in the omentum (in the vicinity of the tumor). The patient underwent a right salpingo-oophorectomy, had an uncomplicated post-operative course and received radio- and chemotherapy. Thirty months after the operation, the patient is in good health and with normal ultrasound and laboratory results. We believe that conservative surgery followed by adjuvant radiotherapy and chemotherapy seems to be ideal treatment in case of pure ovarian dysgerminoma when careful surgical staging confirmed the unilaterality of disease.

KEY WORDS: Dysgerminoma; Adolescence

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Final diagnosis of our case was unilateral pure dysgerminoma that did not spread beyond the capsule. Only one micrometastasis was found microscopically in the omentum (stage III). The treatment consisted of simple salpingo-oophorectomy followed by adjuvant radiotherapy and chemotherapy. The patient had an uncomplicated post-operative course.

The follow-up of thirty months confirms that the patient is in good health condition and with normal ultrasound and laboratory results.

DISCUSSION AND CONCLUSION

Dysgerminoma is the most common malignant ovarian germ cell tumor. It may occur at any age, but usually before age 30 (80% of cases). It is also one of the two most common ovarian neoplasms observed in pregnancy, the other being serous cystadenoma. Metastatic spread does not occur early in the course of disease, mostly via the lymphatic system and because of that a 5-year survival is 75-90% (2,3,7). One of the reasons for good prognosis is immunologic response to the tumor. Immunohistochemical investigations discovered marked cellular stromal reaction with formation of disseminated granulomas, similar to that seen in the closely related tumor, testicular seminoma (2,3). Mainly T cells (CD43+, CDRO+) and macrophages/epitheloid cells (MAC387+, CD68+) are found. In most cases of dysgerminoma B cells (CD20), natural killer cells (CD57+) and immune accessory cells (CD1+, CD35+) are rare. Virtually, no tumor cells have been found to express major histocompatibility complex (MHC) Class II antigens (2).

Unfavorable prognostic parameters include presence of metastases at the time of diagnosis, presence of adhesions and spread into adjacent structures, presence of bilateral tumor and presence of other neoplastic germ cell elements (6,8). Survival of patients with pure dysgerminoma was not affected by tumor size (3).

We believe that conservative surgery followed by adjuvant radiotherapy and chemotherapy seems to be ideal treatment in case of pure ovarian dysgerminoma when careful surgical staging confirmed the unilaterality of disease.

REFERENCES