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CASE REPORT

Prolonged Stabilization of Advanced Fallopian Tube Cancer with Leuprolide Acetate

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ABSTRACT

Primary carcinoma of the fallopian tube is an uncommon gynaecologic malignancy with no standard systemic therapy. However, it is usually treated in the same way as epithelial ovarian cancer. In case of chemotherapy failure, hormonal therapy, such as tamoxifen or progesterone, may be used. The GnRH agonists, such as leuprolide acetate, have some activity in advanced platinum refractory ovarian cancer. We presented the case of a 77-year-old woman with stage IV fallopian tube carcinoma. Her disease became resistant to platinum, tamoxifen, and sequentially administered estradiol and megestrol acetate. She was then treated with leuprolide acetate depot 7.5 mg intramuscular injection monthly. The disease was stabilized for 12 months. Therefore, leuprolide acetate may be considered for the treatment of patients with advanced fallopian tube cancer whose disease developed resistance to platinum based chemotherapy.

Key words : fallopian tube cancer, leuprolide

Primary fallopian tube carcinoma is a rare form of gynaecologic malignancy. Therefore, there is limited data regarding the management of advanced disease which failed prior chemotherapy. Some investigators use hormonal therapy in analogy with epithelial ovarian cancer but its

efficacy in fallopian tube cancer remains to be defined. We reported a patient with advanced progressive fallopian tube cancer whose disease was stabilized with leuprolide acetate for one year.

Case Report

A 73-year-old white female who was para 2 with a history of good health most of her life, presented to her physician in May 1993 complaining of a recent onset of increasing fatigue, nausea, and a weight loss of 14 pounds. An ultrasound of the gallbladder and kidneys was unremarkable. The patient was started on omeprazole with a presumptive diagnosis of esophagitis. However, she had no relief of her symptoms. She then underwent a further evaluation, including computed tomographic (CT) scan of the abdomen and pelvis, esophagogastroduodenoscopy, and colonoscopy in June 1993. The CT scan revealed enlarged retroperitoneal lymph nodes, but no other significant finding. The esophagogastroduodeoscopy and colonoscopy did not reveal malignancy but showed colonic polyps. A CT-guided retroperitoneal lymph node fine needle aspiration biopsy was performed. It revealed a metastatic poorly differentiated adenocarcinoma with focal mucin production. The patient was then referred to the University of Texas M.D. Anderson Cancer Centre in August 1993. The physical examination at that time revealed a poorly defined nodularity around the umbilical area, and an enlarged left supraclavicular lymph node sized 1 x 1 cm but no other lymphadenopathy. The pelvic examination and transvaginal ultrasonography did not reveal any pelvic abnormality. The CA125 level was 135 units/ml. A fine needle aspiration of the supraclavicular lymph node confirmed the presence of a metastatic poorly differentiated adenocarcinoma. Therefore, she was considered to have a metastatic adenocarcinoma of an unknown primary site. The possibilities included gastrointestinal and Mullerian (ovarian, peritoneal, fallopian tube) carcinomas. In order to better define the possible options of first line and salvage systemic therapy, an exploratory laparotomy and total abdominal hysterectomy with bilateral salpingo-oophorectomy, omentectomy and tumour reductive surgery were performed in September 1993. The laparotomy revealed a left fallopian tube tumour 3 x 3 cm in size at the fimbria. An infracolic omental mass 7 x 7 cm in size and large retroperitoneal lymphadenopathy, 12 x 8 cm in size, were noted. Interestingly, both ovaries and the uterus were small and appeared atrophic. The para-aortic lymph node mass was too large to be removed. Pathology revealed a high grade papillary serous adenocarcinoma of the left fallopian tube stage IV. (Fig. 1) She was subsequently treated with carboplatin and cyclophosphamide. Her CA125 decreased from 135 to 31.6 units/ml and her periumbilical nodularity was no longer palpable. After seven courses, her retroperitoneal mass and CA125 levels plateaued. Chemotherapy was discontinued in March 1994. Since the laparotomy revealed a

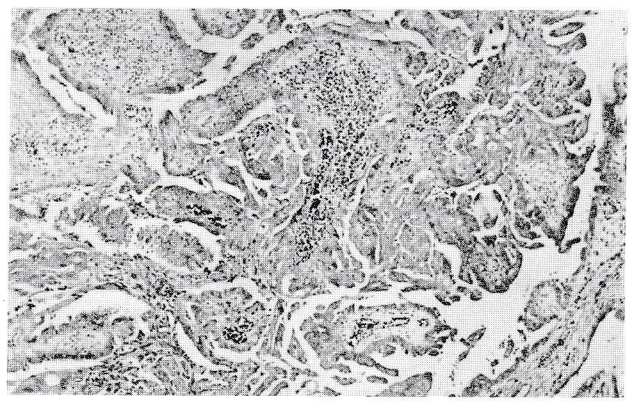

Fig. 1. High grade papillary serous carcinoma of the fallopian tube.

Mullerian carcinoma, we decided to attempt a hormonal anti-cancer therapy as in the treatment of epithelial ovarian malignancies. So her treatment was changed to tamoxifen 40 mg/day. However, her retroperitoneal mass increased in size in July 94 after three months of the therapy. Therefore, the treatment was changed to sequential estrogen 50 mcg/d on day 1 - 7 and megestrol acetate 40 mg four times a day on day 8-25. This was repeated every 28 days. Two months later in September 1994, her disease progressed as manifested by pelvic pain and enlarging left supraclavicular and para-aortic lymph nodes. We then started treatment with leuprolide acetate depot 7.5 mg intramuscular injection monthly. Her disease was stabilized with no increase in the size of the left supraclavicular and retroperitoneal lymph nodes. Furthermore, she had a decrease in pain. She tolerated this treatment very well with no side effect. However, after twelve months in October 1995, her left supraclavicular lymph node and paraaortic adenopathy, by the CT scan, progressed. Accordingly, the leuprolide acetate therapy was stopped and carboplatin reinduction was initiated.

Discussion

Primary carcinoma of the fallopian tube occurs most frequently in the fifth and sixth decade of life. The classic triad of symptoms consists of a prominent watery vaginal discharge, pelvic pain, and a pelvic mass. However, this triad is seen in fewer than 15% of the patients.[1] Post-menopausal bleeding and abdominal pain are the most common presenting symptoms. This tumour is an uncommon type of gynaecologic malignancy and accounts for only 0.5 - 1.1% of all cancers of the female reproductive tract.[2,3] There is no standard treatment for this cancer. However, it is usually treated in the same way as epithelial ovarian cancer. In advanced cases, cisplatin containing chemotherapy such as CAP (cyclophosphamide, doxorubicin and cisplatin) results in response rates of 21 to 80% with a 5 years survival rate of 13.6 - 51%.[4-7] In case of residual disease after surgery, the median survival is 21months.[7] After failure of chemotherapy, hormonal therapy is used in some institutions.[4,5] In the Roswell Park experience, medroxyprogesterone and tamoxifen were used and resulted in tumour progression after only 2 and 4 months, respectively.[5] However, there is no report of treatment with GnRH agonist. In this patient, after failure with platinum chemotherapy, tamoxifen, and sequentially administered estrogen and megestrol acetate were used based on their activity in epithelial ovarian carcinoma.[8-10] When these failed, leuprolide acetate was started. The latter was chosen based on the evidence of its activity in platinum refractory advanced ovarian cancer.[11,12] In this case, the disease became stable for 12 months. GnRH agonists, such as leuprolide acetate, may be considered for the treatment of patients with advanced fallopian tube cancer.

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