EUS-guided implantation of radioactive iodine-125 seeds in retroperitoneal metastatic adenocarcinoma

A 61-year-old Chinese woman presented to Changhai Hospital with a 1-week history of abdominal distension. MRI scan showed many enlarged lymph nodes near the hepatic portal and retroperitoneal areas, considered to represent lymphoma (Fig. 1). Laboratory test results were as follows: white cell count 8.92 × 10^9/L, hemoglobin 90 g/L, platelet count 239 × 10^9/L, γ-glutamyltransferase 73 U/L. Renal function, α-fetoprotein, and CA19–9 were normal, while the serum level of carcinoembryonic antigen was 305 ng/mL. Histopathology of the CT-guided puncture biopsy specimen showed metastatic adenocarcinoma (Fig. 2). Immunohistochemical staining showed high expression of p53, intermediate expression of the drug resistance Topo gene, and moderate cell proliferative activity.

The patient was given chemotherapy twice with a 1-month interval. The drugs given were oxaliplatin 200 mg (day 1), 5-fluorouracil 750 mg (days 1–5), and calcium folinate 200 mg (days 1–5). After that, EUS-guided implantation of iodine-125 seeds was performed twice. The seeds were implanted into the enlarged lymph nodes using a 19-gauge needle. Twenty seeds were implanted at the first session and 12 seeds at the second, with a 7-day interval (Fig. 3, 4). The implantation of radioactive seeds was safe for the patient, as shown by the absence of any significant procedure-related complications. Two months after the implantation, two courses of the same chemotherapy regimen were given.

Twelve months later, the patient’s symptoms were eliminated. Abdominal CT scan showed that the enlarged lymph nodes had completely disappeared (Fig. 5).

We are unaware of any previous reports similar to this case. On the basis of the present case, we conclude that combining brachytherapy with chemotherapy for the palliative treatment of such lesions should be safe and effective.