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



**Fig. 1** MRI scan showed many enlarged lymph nodes (arrow) near the hepatic portal and retroperitoneal areas.



**Fig. 4** CT scan after implantation of radioactive iodine-125 seeds (arrows show seeds).



**Fig. 2** The biopsy pathology showed meta-static adenocarcinoma (H&E staining).



**Fig. 3** Endoscopic ultrasound image of retroperitoneal cancer during the implantation of iodine-125 seeds.



**Fig. 5** CT scan shows retroperitoneal enlarged lymph nodes to have completely disappeared (arrow shows seeds).

EUS-guided implantation of radioactive seeds of iodine-125 combined with chemotherapy was used to treat a case of inoperable retroperitoneal metastatic adenocarcinoma. Complete local remission was achieved.

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 area, considered to represent lymphoma (**> Fig. 1**).

Laboratory test results were as follows: white cell count  $8.92 \times 10^9$ /L, hemoglobin 90 g/L, platelet count  $239 \times 10^9$ /L,  $\gamma$ -glutamyltransferase 73 U/L. Renal function,  $\alpha$ 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.

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## Bibliography

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