REPEATED PERCUTANEOUS SCLEROTHERAPY OF AN ENORMOUS PELVIC CYST WITH ABSOLUTE ALCOHOL OF FLUSHING DOSE: REPORT OF A CASE

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ABSTRACT

In this report, we treated a case of enormous pelvic cyst by repeated percutaneous sclerotherapy with absolute alcohol achieving favorable outcome. A total of 13460 ml of serous fluid was aspirated at the first time. Although some side effects occurred after treatment, the patient recovered smoothly after corresponding therapy. One month later, the cystic space disappeared after four intracystic injections of absolute ethanol.

Key words: Pelvic cyst, repeated percutaneous sclerotherapy, outcome.

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Introduction

The procedures for the percutaneous absolute alcohol sclerotherapy vary in international literature. Some physicians attempt to directly aspiration of cystic fluid followed by injection of absolute alcohol, otherwise others usually insert a drainage tube for drainage. The volume of absolute alcohol is about 26–91% of that of cystic fluid and the maximal volume of absolute alcohol ranges from 60 ml to 600 ml. The time of absolute alcohol staying in the cyst ranges from 10 min to 4 h or even the alcohol is not aspirated. Some authors recommend single-session treatment but others propose repeated sessions of alcohol injection. The interval between two injections ranges from 12 h to 5 days. In the present study, on the basis of our previous experience, we treated a case of enormous pelvic cyst (>10 cm in diameter) by repeated percutaneous sclerotherapy with absolute alcohol achieving favorable outcome.

Case Presentation

In May 2011, a 26-year-old unmarried woman presented to our department with 4-year progressive abdominal swelling. The distension extended to the costal arches causing them to bulge, and the maximal abdominal circumference measured 48 inches. Ultrasonography showed an enormous well-defined and echo-free mass with good through transmission and an imperceptible wall, which nearly occupied the whole abdominal cavity. The liver and gallbladder translocated due to jostle of the cyst, and the spleen translocated laterally to the left and small intestine was displayed in the lateral region of abdomen. The routine blood test, liver and kidney function test, urinalysis, and detection of PT and PTTK showed normal.

After obtaining informed consent, an 18G PTC needle was inserted into the cyst under ultrasound guidance and a total of 13460 ml of serous fluid was aspirated in 4 h. The patient began to
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breath more easily during the operation. Her abdomen was tied with two abdominal bandages in the following days. After aspiration of 180 ml of serous fluid in the next afternoon, 620 ml of absolute ethanol were injected into the cyst and aspirated 10 min later. The symptoms and signs of drunkenness (flushing, dizziness, nausea and debilitation) emerged following this procedure. Then, she was treated with 500 ml of intravenous polarizing liquor solution (10% glucose + 10 U of insulin + 1 g of KCl + 200 mg of vitamin B6) after intramuscular injection of metoclopramide (10 mg), naloxone (0.4 mg) and vitamin B1 (100 mg); drunkenness relieved within 1 h. To prevent infection, oral metronidazole (400 mg) and levofloxacin (100 mg) were administered ‘tris in die’ for three days after discharge. The secretion of cystic fluid was still present, and about 650 ml of brown fluid was aspirated weekly although she was weak. Her body temperature fluctuated from 37.5 °C to 38.6 °C, reduced by 1 °C daily and returned to normal level. Twenty one days later, she was treated with injection of about 500 ml of absolute ethanol into the cyst once weekly achieving favorable outcome. The volume of aspirated cyst fluid reduced from 760 ml to 300 ml and the cystic space disappeared one month later after 4 absolute ethanol injections. The postoperative managing examination showed the same as that after the first absolute ethanol injection. She had no severe side effects except the symptoms and signs of drunkenness. All the procedures were performed in the out-patient department.

Discussion

For patients, percutaneous ethanol injection is more minimally invasive, economic and convenient, compared with open surgery and laparoscopy. It may be performed under local anesthesia in out-patient department. Alcohol can fix the cells lining the cyst cavity, and disable their ability to secrete fluid. Recurrence may occur if alcohol does not come in contact with all of them(13). In the case, the remnant cystic space grew larger after every aspiration without ethanol injection, which showed some active cells lining the cystic cavity persisted to secret fluid. Enough alcohol should be injected to inactivate all the cells but excessive alcohol might cause severe unwanted side effects especially for patients with large cyst(7). It is necessary to choose a maximal dose of alcohol according to the response of patients.

Repeated alcohol injections had been proposed(14). Multiple sessions of percutaneous sclerotherapy of enormous pelvic cyst with absolute alcohol of flushing doses achieved favorable outcome in the present case although some side effects occurred as previously reported(8). Drunkenness was treated promptly because two patients once emerged abscesses after postoperative vomiting. This management has been applied in the treatment of 57 patients and results demonstrated that this treatment was safe and effective.
References


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