OVARIAN VEIN THROMBOSIS-SPIRAL CT DETECTION

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ABSTRACT

Right and left ovarian vein thrombosis was shown by coronal reformation of the spiral CT scan in a patient with colonic carcinoma, liver metastases and secondary septicemia. Clot was seen in the entire length of the right ovarian vein.

INTRODUCTION

Right ovarian vein drains into the inferior vana cava and the left ovarian vein drains into the left renal vein. Ovarian vein thrombosis is usually associated with inflammatory processes in the pelvic cavity (10), post pelvic surgery and malignancy (2). Ovarian vein thrombosis detected by CT scan has been reported by many authors (1-6), this is the first report of this condition demonstrated by spiral CT scan.

CASE REPORT

A 68-year-old female patient was referred for spiral CT scan to clarify the cause of post operative fever. The patient was operated for ascending cholangitis; the gallbladder was removed and T-tube insertion was done. Spiral CT scan was performed with i.v. contrast enhancement. The slice thickness was 5 mm. Oblique reconstruction in coronal plane to show ovarian veins was shown in Fig.1. Clots was seen as an unenhanced tubular structure in the entire length of the right ovarian vein. The sharply defined enhancing wall of right ovarian vein was demonstrated. Other findings in this patient were carcinoma of the hepatic flexure and liver metastases.

DISCUSSION

Puerperal ovarian vein thrombosis is a rare but potentially fatal condition, requiring broad-spectrum antibiotic and anticoagulation therapy and ligation of the involved vein if failed medical treatment (2). The ovarian vein thrombosis associated with malignancy and chemotherapy can be asymptomatic and the role of the medical and surgical treatment is not yet clear (1). The thrombosed vein was seen on axial CT scan as enlarged vein, containing low density central lumen and a sharply defined enhancing wall (7). The ovarian vein is lateral to the uterus and ureter, anterior to the psoas muscle, anteromedial to the kidney and anterolateral to the inferior vena cava (for the right side) (2).

In our case, the thrombus was more extensive in the right ovarian vein. Right ovarian vein was more commonly involved than the left side, almost five times as often (8). The reasons for this was believed

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to be due to the longer right ovarian vein with multiple incompetent valves, compression by the enlarged dextrotorsion of the uterus and significant retrograde drainage of the left ovarian and uterine veins into the right system (8). Right ovarian vein thrombosis associated with malignancy also predominated the left side (1). Spiral CT scan can certainly demonstrate the ovarian vein thrombosis better than the non-spiral technique, due to lack of respiratory motion, making better resolution for reconstruction in other planes.

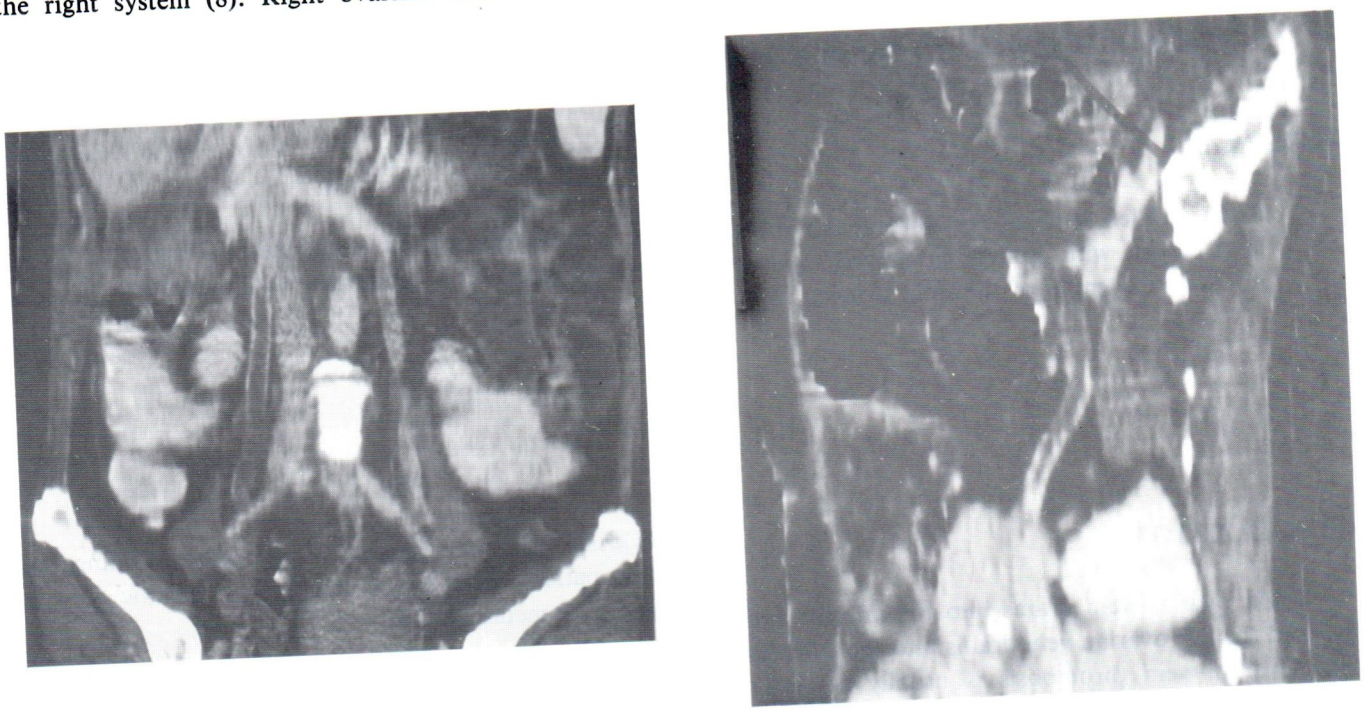

Fig. 1 Thrombus in the entire length of right ovarian vein was seen as the unenhanced low density tubular structure surrounding by the thin enhanced wall of the vein. The collapsed left ovarian vein was also shown.

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