

Scrotal Swelling Secondary to Leakage from Continuous Ambulatory Peritoneal Dialysis : Computerized Tomography Diagnosis

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Continuous ambulatory peritoneal dialysis (CAPD) is a commonly used replacement therapy in the management of end-stage renal disease (ESRD). However, a number of complications occur with CAPD, including catheter-related infections, pericatheter external leaks, abdominal wall and inguinal hernias, diaphragmatic leaks with pleural effusion. Occasionally, scrotal swelling may develop during this procedure because of fluid passing through a patent processus vaginalis. It is important to identify abdominal structural abnormalities in these (CAPD) patients, in order to avoid life-threatening complications such as strangulation/incarceration of hernias and peritonitis. A computerized tomography (CT) scan of the abdomen is an excellent method of identifying the site of the peritoneal leak. We report a case of a acute scrotal swelling in a patient receiving CAPD.

Case : A 28-year-old male patient with chronic glomerulonephritis and ESRD was started on CAPD using 2 L of dialysate fluid. Within 2 hours, he developed a significant edema and swelling of the right side of the scrotum and penis. The size of scrotal swelling was found to be equivalent to the size of an egg, but painless. On palpation, the scrotum was found to be firm, movable, and tender. The scrotal skin did not show any inflammatory changes. There was no overt evidence of any dialysate leak externally. Physical examination had failed to detect any hernias before starting CAPD. To confirm and demonstrate the dialysate fluid leak into the scrotum, an abdominal-pelvic CT was performed pre and post radiocontrast dye (Ultravist 100 mL) plus dialysate insertion into the patient's abdominal cavity via Tenckhoff catheter. The CT with intraperitoneal instillation of radiocontrast dye clearly demonstrated the peritoneo-scrotal linkage. Surgical repair of an inguinal hernia resulted in complete resolution of the scrotal swelling. After 10 days of herniorrhaphy, the patient restarted CAPD without complications.