Among 23 patients who underwent coronary angiography, 12 (52%) had perfusion defects on MCE. Significant CAD was revealed on angiography in 10 (43.5%) patients: in 4 (17.4%) single-vessel and in 6 (26.1%) multi-vessel disease. To investigate diagnostic performance of MCE in detection of significant coronary lesion, we performed a vessel-based head to head comparison with coronary angiography for three different regions supplied by LAD, Cx and RCA respectively, in every patient. Results are exposed in Figure 1. Altogether we did not notice false negative MCE results. The sensitivity of MCE for detecting significant coronary stenosis as well as negative predictive value was 100% for the three investigated regions. Specificity and positive predictive value were the lowest for LAD: 72 and 50%, while for Cx were 81 and 70% and for RCA 83 and 62.5%, respectively.

MCE enables investigation on myocardial tissue perfusion, as well as the spatial extent of microvascular obstruction. MCE has previously been validated as the reference technique for evaluation of myocardial perfusion, particularly in the setting of myocardial infarction [2,3]. To our knowledge, this report is the first to apply MCE in patients on HD for this purpose. Contrast media applied for MCE contain high-molecular-weight gases exhaled, not eliminated by kidneys, thus not contraindicated in patients with renal failure. In our opinion, two episodes of CA were related to coronary angiography and not to the contrast agent.

Impaired myocardial perfusion was detected in as much as 65% of our patients. Compared with those with normal perfusion, patients with perfusion abnormalities were at higher risk for cardiovascular events despite a short FU time. Prognostic value of echocardiographic and nuclear imaging techniques in ESRD patients was largely investigated, but with non-uniform results. However, Rabbat et al. [4] in a meta-analysis concerning prognostic utility of two techniques of myocardial perfusion assessment (thallium scintigraphy and dobutamine stress echocardiography) found that both are useful in predicting future myocardial infarction or cardiac death in patients with ESRD.

Coronary angiography confirmed significant coronary stenoses in 10 out of 23 patients, while perfusion disturbances in MCE were detected in 12. Thus, agreement between MCE and coronary angiography in a patient-by-patient analysis was good (no disease) with a tendency of MCE to overestimate the severity of CAD.

Our preliminary results indicate that MCE is an uncomplicated and safe method of perfusion assessment in patients with ESRD at a bedside. MCE results might be useful for risk stratification in HD patients. MCE seems to be a valuable tool in predicting the presence of significant coronary artery stenosis in patients with ESRD.

Conflict of interest statement. None declared.


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Mycotic pseudoaneurysms in a CAPD patient

Sir,

We report a case of a 49-year-old male with prior history of membranous glomerulonephritis, who had been on haemodialysis since 1991. He had received two kidney transplants (1992 and 1994), losing both due to relapse of the underlying disease. In 1994 he was placed on a peritoneal dialysis programme.

In June 2004, he was admitted with fever and an umbilical hernia, and leakage of the peritoneal fluid was observed as was a small mass in each inguinal area. Culture of the peritoneal fluid showed Staphylococcus aureus and Enterococcus faecalis. Haemocultures were negative. Intravenous meropenen and intraperitoneal vancomycin and tobramycin were administered. Forty-eight hours later, both masses presented rapid growth. An eco-Doppler examination revealed bilateral pseudoaneurysms in both external iliac arteries, that were...
confirmed by arteriography when two endoprosthesis wall-graft (diameter 12 mm, length 60 mm, Boston Scientific Meditech, Natick, MA, USA) were successfully placed percutaneously in the lumen of both arteries (Figure 1). Additional studies did not reveal any other potential cause of the fever. The patient was haemodialysed and maintained on antibiotic treatment until discharge.

The concomitant presence of peritonitis and bilateral pseudoaneurysms, without any other infectious focus or previous endo-cardiovascular manoeuvres, was suggestive that both processes were associated and that peritonitis was the cause of the mycotic pseudoaneurysms.

A mycotic pseudoaneurysm is defined as a disruption of all layers of the arterial and the surrounding tissues and haematoma providing a temporary seal. In the course of time, a fibrous capsule will be formed that can increase in size because of the pressure of the bloodstream [1].

In the general population, pseudoaneurysms in the aorto-iliac area are described as a rare complication of intra-abdominal infectious processes. Also, cases related to arterial stents [2], as a complication of liver transplants [3] or retrograde urinary tract infection in renal transplantation, have been reported [4].

In our case, the origin seems to have been caused by the adjacent peritonitis presented by the patient. However, although peritonitis is common in CAPD patients, until now there has not been any report of the association of peritonitis with iliac pseudoaneurysms in this population.

Diagnosis is based on radiological techniques. The association of a positive haemoculture is found in 50–85% of the cases. A pathogenic agent is isolated in the culture of the aneurismatic tissue in 76% [5,6]. In our patient, there was no possibility of tissue culture as the treatment was carried out with an intra-arterial endoprosthesis. This type of therapy is an emerging alternative as it is efficient and less invasive than the traditional approach. It should not be forgotten that concomitant treatment with adequate antibiotics must also be administered.

Conflict of interest statement. None declared.