between PET results and final (pathological or clinical) disease staging does not allow definitive conclusions [15]. Even though reported sensitivity rates for complete pathological response immediately or shortly after CRT are poor, sensitivity and specificity rates for late recurrent rectal cancer reach 80%–90%. In fact, PET results for recurrence after initial CRT are also associated with sensitivity and specificity rates over 80% [16]. Interestingly, the positive predictive value and accuracy seem to improve when PET is performed more than 12 months after CRT [16].

In our series, PET was performed in patients after a considerably long interval after CRT completion. Absence of FDG uptake was consistent with other clinical, radiological, and endoscopic studies showing no signs of disease persistence or recurrence. All patients in the control group with disease persistence had FDG uptake and therefore served as adequate positive controls.

In conclusion, PET may be a useful tool during late assessment of local control after complete clinical response and non-operative management for distal rectal cancer following CRT. Also, this imaging study based on altered cellular metabolism of cancer cells provides further evidence of adequate long-term local control after this treatment.

References


Brain abscess as a rare complication of acute sigmoid diverticulitis

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Dear Sir,

Diverticulosis is an evolving pathology in the western world probably related to diet and lifestyle [1]. It is usu-
ally asymptomatic and therefore the exact prevalence is unknown. However, it is estimated that 30% of persons in the sixth decade of life has diverticulosis and that this increases up to 50% in persons older than 85 years of age [2]. Consequently, an increasing number of patients with complicated diverticular disease is expected in the following years.

It is well known that acute inflammation, stenosis and fistula are the most common complications of this disorder [1]. However, there are few reports about extra-abdominal infectious complications of this common disorder.

A 75-year-old man presented to the emergency room with fever and reduced consciousness. His family reported a 3-month history of intermittent episodes of fever and weight loss, and some episodes of abdominal discomfort. His medical history was remarkable for arterial hypertension and diabetes mellitus. Physical examination on admission showed only disorientation and fever (38° C). Although the abdomen was slightly distended, the physical examination was defined as unspecific. Cranial computed tomography (CT) revealed a well-defined low density lesion in the left temporal region, with peripheral oedema (Fig. 1). The differential diagnosis included brain abscess vs. metastasis of unknown origin.

The patient was admitted to the intensive care unit, and antibiotic therapy (cefotaxime, metronidazole and ampicillin) and dexamethasone plus mannitol bolus were commenced. As the evolution was favourable, the patient was transferred 2 days later to the neurosurgery service. On day 4 after admission, the patient referred acute lower abdominal pain. Physical examination showed diffuse abdominal pain and tenderness. Abdominal CT revealed complicated acute diverticulitis in the sigmoid colon, free peritoneal fluid, pneumoperitoneum and a 6-cm pericolonic abdominal abscess.

With the diagnosis of colonic perforation due to complicated colonic diverticulitis, surgery was indicated. Surgery confirmed the diagnosis of perforated acute diverticulitis with faecal peritonitis. Hartmann’s procedure was performed. Ten days after operation, the brain abscess was drained by aspiration using stereotactic guidance. Neurologic symptoms disappeared and a control cerebral CT scan in the follow-up period revealed that the abscess was completely drained.

Examination of brain abscess aspiration and abdominal fluid revealed gram-positive cocci, and from abdominal fluid culture Enterococcus faecalis sp. was finally isolated. The final pathological report indicated that the patient had acute sigmoid diverticulitis with pericolonic abscess.

This rare presentation of complicated diverticular disease lets us take into account the very uncommon, remote complications of this evolving pathology. There are some factors associated with diverticular complications, like age less than 50 years, number of acute diverticulitis attacks, male gender, and stenosis in the barium enema study [1]. However, there are few reports on the long-term complications of this western disease. An extraperitoneal complication, a rare presentation as arthritis and finally two cases of brain abscess have been reported [2–4].

As we considered the diagnosis of cerebral metastasis, CT appearance and the acute diverticulitis episode were of paramount importance for the final diagnosis of brain abscess. Even in consideration that preoperatively colonic cancer can mimic an acute diverticulitis, cerebral metastasis from colonic neoplasm is uncommon. Thus, the incidence of brain metastasis varies from 1% to 3.5% [5]. Otherwise, definitive diagnosis was done by the histopathologic analysis that confirmed infectious origin.

It is very interesting to claim that colonic complication is, as far we know, a rare cause of brain abscess. The most rational hypothesis of the vehiculation of sepsis from the abdominal cavity to brain abscess is by transient bacteremia from acute diverticulitis. The unknown origin of bacteremia is one of the well recognised first manifestations of colonic tumour [4]. However, it is interesting that in this rare presentation, the liver was not affected, considering that haematogenous bacterial spread via the portal vein with formation of liver abscess has seldom been described [2]. Brain abscess, moreover, usually originates in otic or traumatic infections [6].

The first-line treatment of the brain lesion with antibiotics was enough to stabilise the patient and there-
fore definitive stereotactic aspiration is not always necessary. Despite the fact that Enterococcus faecalis sp. is responsible for brain abscess in only around 2% of cases, it is interesting to note that this pathogen was also described in a previous report [2].

In conclusion, brain abscess is an atypical presentation of complicated diverticular disease in which combined treatment is necessary.

**References**


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