

Antibiotic therapy was ceased after 24 days, when the intra-abdominal hematoma resolved. The patient was then successfully discharged.

Discussion

The laparoscopic Roux-en-Y gastric bypass is one of the most common bariatric procedures worldwide,² but life-threatening complications such as anastomotic leak and gastrointestinal hemorrhage may arise.^{2,5}

When intra-abdominal abscesses occur, drainage and antibiotic therapy are usually required.⁵ Foreign matter such as gastrointestinal content or blood may facilitate the development of the infection, which is usually polymicrobial from the gastrointestinal tract, including both aerobic and anaerobic Gram-negative bacilli, as well as anaerobic Gram-positive microorganisms. However, *Lactobacillus* species are a significant part of the human microbiota, and are used as a probiotic supplement that has proven to be effective in the treatment of acute diarrhea in adults and infants, antibiotic-associated diarrhea and in female genital tract infections.⁴

There is a controversy regarding the clinical significance when isolating this microorganism from normally sterile sites. Nevertheless, its involvement in serious infections has been demonstrated.⁴ The risk factors related to *Lactobacillus* spp. infection include underlying diseases such as immunosuppression, recent surgery and prolonged antibiotic use. The most common infection caused by *Lactobacillus* spp. is bacteraemia either with or without endocarditis, with *L. rhamnosus* being the main species isolated in Europe,⁶ and *L. salivarius* in Asia.³ Identification of *Lactobacillus* spp. can be challenging. The variable Gram stain morphology and the slow and minimal growth on routine cultures, in association with their anaerobic requirements, can lead to an incorrect identification.⁷ Nevertheless, the MALDI-TOF MS method has shown a high discriminatory power when identifying these bacteria. A study comparing genomic identification versus MALDI-TOF MS showed a concordance of 96%.⁸

In our patient, the isolation of *L. salivarius* as the only bacteria can be explained by its high tolerance to gastric acid and by the fact that they produce substances such as bacteriocin, which is capable of inhibiting the growth of other bacteria.⁹ *L. salivarius* is intrinsically resistant to vancomycin, as are the majority of the species in this genus. Therefore, recommended therapy consists of high doses of penicillin or ampicillin.⁴ However, a review of 200 cases showed that only 55% were inhibited by penicillin and 63% by ampicillin.⁴ This data conveys the need to study the resistance pattern of any isolate with clinical relevance. In some cases, surgery can be more

effective than antibiotic treatment.¹⁰ In the case report described herein, draining the hematoma, cleaning the abdominal cavity and antibiotic treatment based on piperacillin/tazobactam was enough for the resolution of the intra-abdominal abscess.

Conflicts of interest

The authors declare that they have no conflict of interest.

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Listeria monocytogenes meningitis: PCR multiplex diagnosis[☆]



Meningitis por *Listeria monocytogenes*: diagnóstico mediante PCR multiplex

Infectious meningitis and encephalitis are clinical syndromes with high morbidity and mortality rates. Rapid and accurate aetiological diagnosis is vital for correctly managing the patient and

establishing preventive measures for populations at risk.¹ New molecular techniques may be an effective tool for achieving this objective. The FilmArray Meningitis/Encephalitis Panel (BioFire) is a multiplex PCR assay capable of simultaneous detection of 14 of the main pathogens responsible for meningitis/encephalitis, which has been evaluated in several studies.^{2,3}

This article studies the case of a 79-year-old male patient who, after undergoing surgery for bladder cancer two years earlier, visited the emergency department complaining of generally feeling unwell with a fever of 39.8 °C, altered level of consciousness, abnormal speech and gait, tremors and severe headache. He reported having started with a dry cough, odynophagia and fever 10 days earlier, which was diagnosed as acute pharyngitis. He was initially treated with paracetamol and amoxicillin + clavulanic acid and was then treated with moxifloxacin due to persistent symptoms.

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A neurological exam performed in the emergency department found no signs of meningitis. As the doctors suspected encephalitis, a head CT scan was performed which showed no alterations. The CSF showed pleocytosis, with 514 leukocytes/mm³ (87% mononuclear), glucose 36 mg/dl and protein 87.6 mg/dl. Gram staining showed no microorganisms. Cultures were grown on blood agar, chocolate agar and thioglycollate broth, which were incubated at 35 °C with 5% CO₂ for 72 h. Treatment was started with ceftriaxone and vancomycin and the patient was admitted to the ICU.

In view of the CSF results (pleocytosis with negative Gram stain), the FilmArray Meningitis/Encephalitis Panel was used, which detected *Listeria monocytogenes*. The results were available within 1 h, which caused doctors to change the antibiotic treatment to a regimen of ampicillin and gentamicin. Over the next few hours, the patient remained haemodynamically stable with a good level of consciousness, and 24 h later, was moved to a ward, where he remained throughout the 19 days of treatment. After this period, he was discharged as he was asymptomatic. The CSF culture was negative.

L. monocytogenes is a gram-positive bacillus that causes meningitis and encephalitis, generally in very elderly and young patients and immunosuppressed patients. Clinical presentation among adults is similar to that caused by pneumococci or meningococci, although the duration of symptoms prior to presentation is longer.⁴

Gram staining and CSF cultures are still the reference techniques for bacterial meningitis, allowing the responsible microorganism to be identified in 70–85% of cases.⁵ However, culture results are not available for at least 24–72 h and may be negative in patients who have received antibiotics, as occurred in our case. In *Listeria* meningitis, CSF tends to show low pleocytosis and high protein levels,⁴ whereas both cell and protein counts are only slightly elevated in cases of encephalitis.⁶ Hypoglycorrhachia is only present in 21% of patients.⁷ These data may make diagnosis difficult due to the similarity of symptoms with a viral aetiology. The sensitivity of Gram staining in *Listeria* meningitis is low, ranging from 23% to 36% in both children and adults,^{4,8} and cultures may be negative, even in patients who have not received prior antibiotic therapy.⁹ In one recent article, the CSF culture was positive in only 83% of patients while blood cultures were positive in 64% of patients with *Listeria*¹⁰ meningitis, highlighting the need for more sensitive diagnostic tests. A false negative culture result or delayed diagnosis can result in inadequate treatment as third-generation cephalosporins (the antibiotics most commonly used for empirical treatment of meningitis) are not effective against this bacterium.¹ Inadequate empirical therapy was a risk factor for mortality in the aforementioned study of patients with *Listeria* meningitis.¹⁰

In our case, use of the FilmArray Meningitis/Encephalitis Panel, which detects the main pathogens responsible for meningitis, providing results within 1 h, allowed us to make a rapid diagnosis. This had repercussions on control and isolation measures (which were quickly withdrawn) and resulted in the patient being changed to the correct antibiotic treatment, which had a favourable impact on the patient's outcome.

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Necrotising otitis externa due to *Scopulariopsis brevicaulis* in a patient without predisposing factors*



Otitis externa necrosante causada por *Scopulariopsis brevicaulis* en un paciente sin factores predisponentes

This article studies the case of a 38-year-old male patient with no history of interest. He reported regular contact with farm

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animals and takes part in water sports. He came to the clinic with purulent otorrhoea and oedema of the left external auditory canal (EAC). He received topical empirical treatment with gentamicin and dexamethasone. After 10 months, he returned to the clinic due to still having painless otorrhoea. Examination with an otoscope revealed dermal and cartilaginous necrosis and non-marginal perforation of the eardrum, associated with indurated dermatitis of the auricle. He had non-tender lymphadenopathy in the left posterior triangle of the neck. He had no fever, dysphonia or weight loss. Human immunodeficiency virus screening and tests for autoimmune disorders were negative. Biopsies were taken from the EAC for microbiological and anatomical pathology testing and a computed axial tomography (CT scan) of the ear was ordered. The patient was treated with linezolid and oral ciprofloxacin. The CT scan showed opacification of the left epitympanic region,