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Impact of bacterial infection in patients with alcoholic hepatitis

Patients with high alcohol intake may develop alcoholic hepatitis with a greater predisposition to bacterial infections. A new study analyses its impact on patients admitted with alcoholic hepatitis at Vall d'Hebron Hospital between 2016 and 2021. This study shows that the presence of associated infection is accompanied by a higher risk of complications and mortality. Hospital acquired infections have a higher risk of serious complications (not only infectious) compared to those diagnosed on admission.

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Alcohol-related liver disease covers a spectrum ranging from hepatic steatosis (simple accumulation of fat) to liver cirrhosis (advanced chronic liver disease). Patients with high alcohol intake (> 100 g per day) can develop an acute form of the disease, known as alcoholic hepatitis or alcohol-associated hepatitis. This is accompanied by jaundice, elevated transaminases, and a significant mortality rate; it usually develops, although not always, in a liver that already has cirrhosis.

Bacterial infections are common in patients with alcoholic hepatitis due to various factors, including hospitalization, but the role of alcohol consumption is key as it promotes

dysfunction, imbalance of the intestinal microbiome, and alteration in intestinal permeability that facilitates the passage of bacteria into the systemic circulation.

In our article, we analyse the impact and characteristics of bacterial infections in 115 patients with alcohol-associated hepatitis admitted to Vall d'Hebron Hospital (2016 and 2021). In 115 patients analysed, 69 bacterial infections were identified in 44 patients in the 90 days following hospital admission (Figure 1). During the hospitalisation period (admission + hospital stay), infections affected 32% of patients, reaching 38.2% at 90 days.

In infections occurring during hospitalization, the predominant site was the thorax (35%, mostly pneumonia) and Gram (+) germs were as frequent as Gram (-). The percentage of multi-resistant bacteria was low (14%) (study carried out in a hospital with a low prevalence of multi-resistance). Patients who had an infection had a worse outcome, with a higher frequency of hepatic decompensation, ACLF (clinical situation in which systemic inflammatory response accompanied by failure of various organs is developed), and worse survival. The 90-day survival of infected patients was 81% while those who did not become infected were 95%. It is noteworthy that patients infected in-hospital had the worst survival (72.7%) compared to those in whom the infection was diagnosed on admission to the hospital (93%) or those who were not infected (95%).

This study highlights that, in patients with alcohol-associated hepatitis, the presence of hospital-acquired infections is associated with a higher percentage of serious complications, including ACLF or death. In contrast, infections diagnosed at the time of admission respond well to treatment without affecting survival. The findings of this study raise the possibility of using prophylaxis strategies to prevent hospital-acquired infections in patients with alcohol-associated hepatitis.

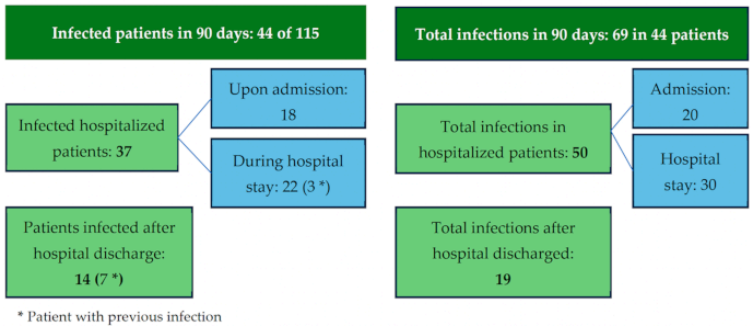

Figure 1. Infected patients and infections at 90 days in alcohol-associated hepatitis

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