Perihepatic abscess secondary to Sphingobacterium spiritivorum

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Introduction: Sphingobacterium spiritivorum is a gram-negative rod belonging to the Sphingobacterium species, previously classified as Flavobacterium species (1). The genus is comprised of S. spiritivorum and S. multivorum. It is commonly found in nature, primarily in water and soil (2). Human infections are rare and predominantly impact immunocompromised or elderly individuals. We present a case of a perihepatic abscess secondary to Sphingobacterium spiritivorum.

Case Presentation: A 65-year-old male with a history of pulmonary embolism on Eliquis, hyperlipidemia, anxiety, depression, and thyroid disease presented to the hospital as a level 1 trauma due to motor vehicle accident with multiple orthopedic fractures. On admission, computed tomography (CT) of the abdomen and pelvis revealed mild degree of diffuse hepatic steatosis with no gross focal hepatic lesion. On hospital day two, CT of the abdomen and pelvis revealed a subcapsular lesion in the right liver, concerning for hemangioma or cyst. On day eleven, hospitalization was complicated by a lower extremity wound infection positive for Bacillus species and Acinetobacter baumannii complex. The patient was treated with Vancomycin and Unasyn for 7 days with resolution of symptoms. On hospital day sixteen, CT abdomen/pelvis revealed an increase in subcapsular fluid accumulation along the right hepatic lobe now measuring 7 cm by 5 cm. The perihepatic abscess was drained by interventional radiology on hospital day 17 and sent for cultures. Cultures were positive for Sphingobacterium spiritivorum. The patient completed a course of IV ceftriaxone 2 grams daily for 6 weeks via PICC line, metronidazole 500 mg every 8 hours for 14 days, and repeated imaging of the liver in 4 weeks.

Conclusion: Currently, there are no standard treatments for *Sphingobacterium* spp. Based on previously reported cases and antibiotic susceptibility, *Sphingobacterium spiritivorum* is susceptible to carbapenems, quinolones, trimethoprim-sulfamethoxazole, and ceftazidime. This patient was successfully treated with ceftriaxone and metronidazole, which supports these susceptibilities.

References

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