

***Capnocytophaga* infection with polymicrobial sepsis causing purpura fulminans in an immunocompetent 50-year-old man with chronic opioid use**

Christopher Hogge<sup>1\*</sup>, Miriam Holzman<sup>1\*</sup>, Sahiba Khurana<sup>1‡</sup>, and Diana Finkel<sup>1‡</sup>

\*These authors contributed equally to this work

<sup>1</sup>Department of Medicine, Division of Infectious Diseases, Rutgers New Jersey Medical School, Newark, NJ, 07103, USA

**Case Description:** *Capnocytophaga* is a gram-negative rod native to the oral flora of canines. This bacterium typically causes subclinical infection in humans. It has rarely been associated with severe septic shock, meningitis, endocarditis, and osteomyelitis, with only 450 cases reported in the literature to date. We present a case of polymicrobial septic shock with *Capnocytophaga* spp. complicated by purpura fulminans of the extremities and genitalia following a dog-bite in a 50-year-old man with an extensive history of opioid use disorder. The case was further complicated by several infectious sequelae including pneumonia and endocarditis, with blood cultures becoming positive for multiple bacteria throughout the course of hospitalization. We also discuss a novel approach to medical management of purpura fulminans of the penis with sparing of surgical intervention. Generally, severe *Capnocytophaga* cases are thought to occur in patients with underlying immune deficiencies. This case, however, highlights the importance of maintaining clinical suspicion for *Capnocytophaga* infection in immunocompetent patients, and we discuss the role of chronic opioid-use in severe infection.