

Pet Owners Beware? A Case of Drug-Resistant *Pasteurella Multocida* Infection

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Background: *Pasteurella* spp is a facultative-anaerobic, Gram-negative coccobacilli highly prevalent amongst the oral flora of many animal species. Most human *Pasteurella* spp infections are due to cat and dog bites. Drug resistance in *Pasteurella* spp human infections has rarely been reported in literature. We present the first documented case of a soft tissue infection due to drug-resistant *Pasteurella multocida* secondary to a cat bite.

Methods: We present the clinical, laboratory, and imaging findings, along with review of the literature.

Results: A 24-year-old female with a past medical history of type 2 diabetes mellitus and congenital heart disease status-post surgical repair presented with a right hand abscess a day after a cat bite. Patient had right hand and forearm swelling, pain, and discharge draining from the puncture sites. Patient was afebrile without leukocytosis. X-ray of the right hand/wrist/elbow showed soft tissue swelling at the wrist. She had incision and drainage of the wrist abscess, and was started on antimicrobial therapy with ampicillin-sulbactam and then discharged on amoxicillin-clavulanic acid. Abscess culture later grew *Pasteurella multocida*, and disk diffusion testing revealed resistance to penicillin, ampicillin, and amoxicillin-clavulanic acid. Cefinase test was positive for the presence of β -lactamase. Antimicrobial therapy was switched to levofloxacin. Patient continued to do well after hospital discharge and did not develop any complications when seen in the outpatient clinic 8 days post-discharge.

Conclusion: This case report represents the first documented case of a soft tissue infection from drug-resistant *Pasteurella* after a cat bite. The potential emergence of drug-resistant *Pasteurella* spp may alter our therapeutic approach to animal bites in the future. This case highlights the need for further epidemiologic studies on *Pasteurella* spp antibiotic susceptibilities in both humans and cats.