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.