

Psitt-ups in the Park: A Bird's Eye View of Exercise Exposure to Psittacosis

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Introduction/Background:

- Chlamydia psittaci is a gram negative, obligate intracellular bacteria typically transmitted from birds to humans.
- The first noted outbreak of psittacosis was documented in 1897 by Swiss physician Dr. J Ritter. Many more global outbreaks happened before the discovery of the bacteria in 1965 with the advent of electron microscopy.¹
- Historically from exotic birds (parrots, parakeets). Psittacosis infections also found with poultry, pigeons, and geese.²
- Transmitted through aerosolized dried bird feces, urine, or through respiratory droplets from the bird.
- Typical incubation period 5-14 days.
- Common symptoms include fevers, chills, headache, myalgia, cough.
- Atypical symptoms – uveitis, reactive arthritis, Horder spots, erythema nodosum/multiforme/marginatum.³
- Diagnosis clinical or via serology, PCR, or rarely culture.



Figures 1-2

Images taken on day of presentation. Figure 1 shows the patient's anterior torso, figure 2 shows patient's posterior torso. Both picture depict light pink, salmon colored non raised rash.

Case Report:

- 52 y/o male with history of atrial flutter s/p ablation in 2015 presents to the family medicine clinic w/ CC of whole body rash.
- Nine days prior to appointment had subjective fevers, myalgias, headaches, night sweats, and palpable R groin lymph node which resolved prior to visit.
- Two days prior to presentation he developed red blotches all over his body, sparing the face. The rash was non-irritating.
- No recent contact with animals, insects, or new chemicals.
- Week prior to onset, ran in the park stopping under a canopy due to downpour of rain. Did sit-ups and push-ups to pass time however noted canopy extremely dirty with bird droppings.
- Vitals: T 37C, HR 78 bpm, BP 128/68, RR 18, O2 sat 98%.
- Physical exam revealed light pink, salmon colored macular patches, oval in shape, and 0.5-1cm in diameter across patient's anterior and posterior trunk, upper extremities and lower extremities – sparing the face.
- Clinical diagnosis of Chlamydia psittaci made given exposure to aerosolized bird feces and course of disease, and patient was prescribed a course of Doxycycline 100mg twice a day for 10 days with good resolution of rash and no residual symptoms after first few days of antibiotics.

Figure 3

Image taken on the day of presentation. Figure showing anterior torso as above as well as anterior surface of upper extremities with light pink, salmon colored non raised rash.



Discussion:

- Differential for this presentation could include tick borne diseases such as rickettsia or Lyme, streptococcal infection, cytomegalovirus, or contact dermatitis.
- Dermatologic manifestations of Chlamydia psittaci are rare with few case reports in the literature.
- Importance is given to history-taking with initial exposure to the vector.
- Chlamydia psittaci is a relatively uncommon disease to encounter in everyday practice. Psittacosis pandemics have not been reported in the 21st century, most cases are small and localized.
- Recognition is especially important in pregnant individuals - some studies have shown 82.6% fetal mortality and 8.7% maternal mortality from gestational psittacosis.⁴
- In pregnant individuals, a course of erythromycin is recommended in the stead of doxycycline.

Work Cited:

1. Harkinezhad, Taher, et al. "Chlamydia Psittaci Infections in Birds: A Review with Emphasis on Zoonotic Consequences." *Veterinary Microbiology*, vol. 135, no. 1-2, 2009, pp. 68–77., <https://doi.org/10.1016/j.vetmic.2008.09.046>.
2. Hogerwerf, Lenny, et al. "Animal Sources for Zoonotic Transmission of Psittacosis: A Systematic Review." *BMC Infectious Diseases*, vol. 20, no. 1, 2020, <https://doi.org/10.1186/s12879-020-4918-y>.
3. Macheta, M.P., et al. "Psittacosis, Panniculitis and Clofazimine." *Journal of Infection*, vol. 28, no. 1, 1994, pp. 69–71., [https://doi.org/10.1016/s0163-4453\(94\)94223-4](https://doi.org/10.1016/s0163-4453(94)94223-4).
4. Tantengco, Ourlad Alzeus. "Gestational Psittacosis: An Emerging Infection." *The Lancet Microbe*, vol. 3, no. 10, 2022, [https://doi.org/10.1016/s2666-5247\(22\)00191-4](https://doi.org/10.1016/s2666-5247(22)00191-4).

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