

# Disseminated Blastomycosis in a Novel Occupational Exposure

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## Case Presentation

- 29-year-old man with no PMH who presents with a three-month history of wart-like lesions, non-productive cough and progressively worsening joint pain in his hands, elbows, knees, and ankles

## HPI

- Symptoms began 3 months ago including:
- Cyst on his left lower abdomen, leading to purulent drainage
- Wart-like lesions spread throughout his face
- Worsening non-productive cough with DOE
- Swelling in his left hand, both elbows, knees and ankles
- Soft, fluctuant mass in his right parietal region
- Firm mass across the roof of his mouth
- 30 lbs. weight loss
- Notably, with the absence of fevers

## Social History

- Originally from Eastern Canada
- Moved to the Southern CA 8 months prior to presentation, traveled via airplane
- Works in an axe throwing factory
- Does not spend time outdoors, but chops wood frequently for work
- Monogamous female partner for the past 10 years, no prior STDs
- Denies EtOH, denies tobacco, no IVDU
- No pets or animal exposures
- Denies sick contacts or incarceration
- Denies tick bites or insect bites
- Traveled to South Africa 10 years ago

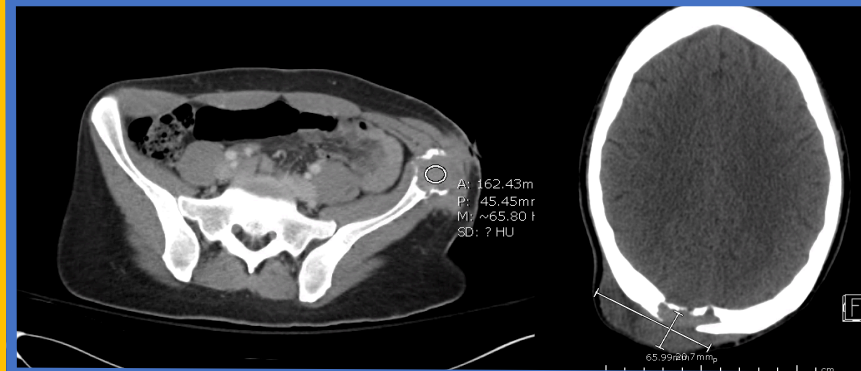
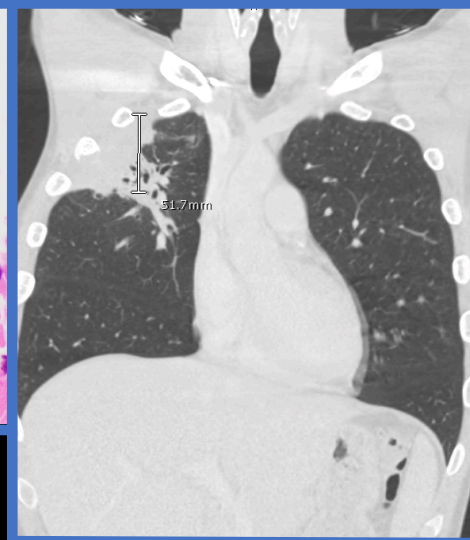
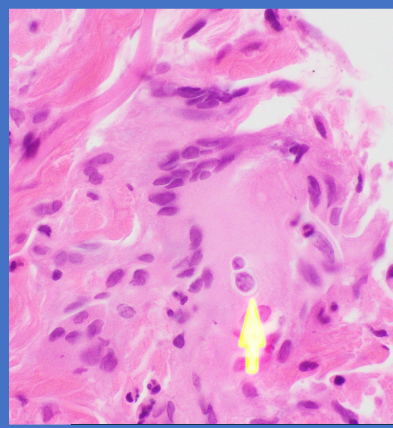
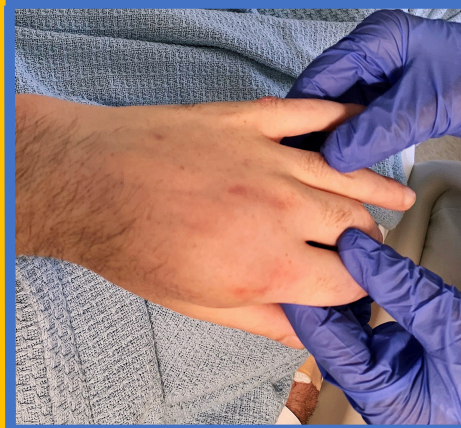


Figure 1. Left Hand, Soft, Fluctuant Mass Near 2nd and 3rd MCP

Figure 2. Left 2nd MCP Biopsy – H&E Stain

Figure 3. CT Chest w/ Contrast

Figure 4. CT Abdomen/Pelvis w/ Contrast

Figure 5. CT Head w/o Contrast

Blastomycosis presents as an indolent pneumonia, however it can disseminate to:

Skin  
(verrucous lesions and cold abscesses)

Bone & joints  
(painless osteomyelitis with sinus tracts)

Genitourinary tract

Mucosa (though uncommon)

Incubation period is often 3 months

Our patient presented with a 5-month incubation period

Eight percent of Blastomyces infections are diagnosed outside of an endemic region

California is a rare region in these cases

Axe throwing is a sporting and leisurely activity that originated in Canada

It may serve an emerging occupational exposure leading to Blastomyces infection



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## Physical Exam

- T: 37.1 P: 110 BP: 137/58 R: 18 SpO2: 98% RA
- General: Thin appearing, bilateral temporal wasting
- HEENT: PERRLA; 7 cm soft, fluctuant mass in the right parietal region, firm mass on the hard palate
- Neck: Supple, no LAD
- Lungs: Diminished lung sounds at right apical lung
- Heart: Tachycardic, no murmurs appreciated
- Abdomen: Soft, non-tender; draining sinus tract in left lower abdomen with purulent drainage
- Extrem: Soft, fluctuant mass near 2nd and 3rd MCP of the hand, and swelling in b/l elbows, knees, and ankles; no erythema or warmth present
- Skin: Several 1 cm verrucous lesions across both cheeks and nasolabial folds

## Labs

- WBC 14.5 (81% PMN, 0% Eos)
- BCx/Fungal BCx: Negative
- CSF: 0 WBC, 0 RBC, 66 Glucose, 28 Protein
- CSF Bacterial/Fungal/AFB Cx: Negative
- HIV Ag/Ab Negative
- Quant Gold: Negative
- RPR: Negative
- Serum CrAg: Negative
- Coccidiomycosis IgM/IgG: Negative
- Histoplasma Ab: Negative
- Histoplasma U Ag: Positive
- Blastomycosis Ab ID: Positive

## Cultures

- Left 2nd MCP Biopsy Cx: +2 Blastomyces dermatitidis (growth after 12 days)
- Abdominal Abscess Cx: +4 Blastomyces dermatitidis (growth after 12 days)

## References

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