



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

Delusional Infestation

Natalie Moriarty, MD

June 23, 2022



SPEAKER DISCLOSURES

- ✓ No conflicts of interest



Natalie Moriarty, MD



Dermatology

★★★★★ 4.8 (138)

Offers video visits

Accepting new patients

Locations

Virginia Mason Hospital & Seattle Medical Center

1100 Ninth Avenue, Seattle, WA 98101

(206) 223-6781

Show Map

Schedule an appointment

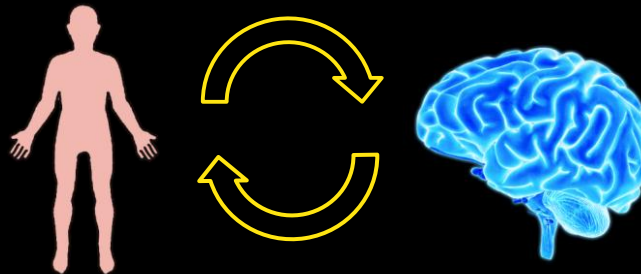
Call (206) 223-6781 to



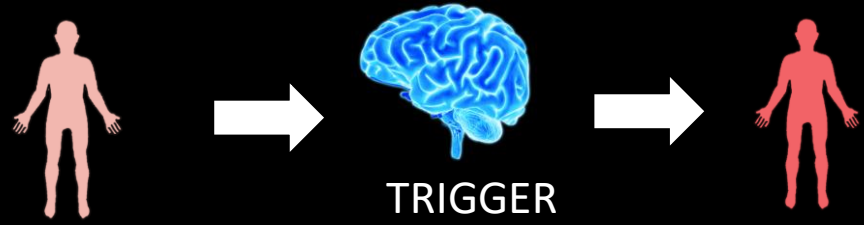
Natalie.Moriarty@virginiamason.org

Psychodermatology

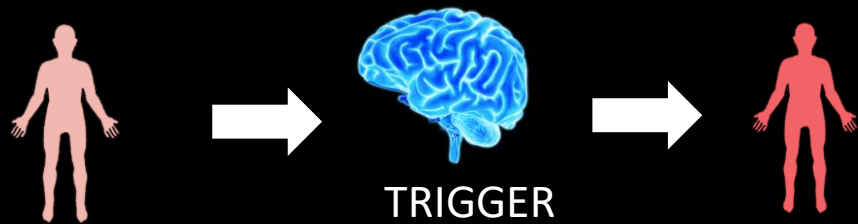
Overlapping area of Psychiatry and Dermatology focusing on the interaction between mind and skin



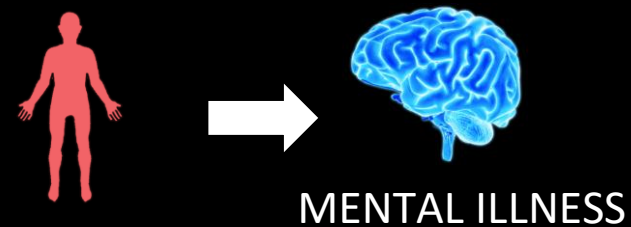
Psychophysiological



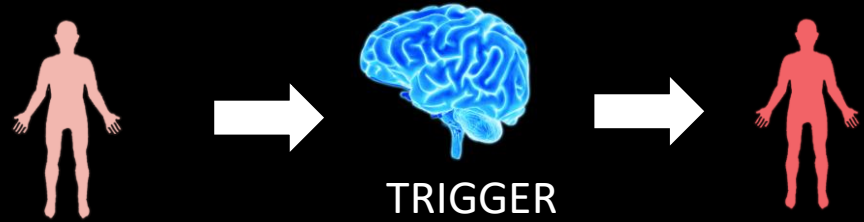
Psychophysiological



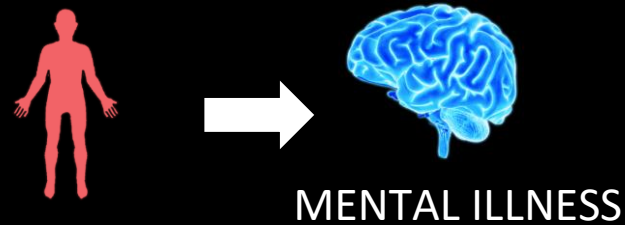
Secondary psychiatric



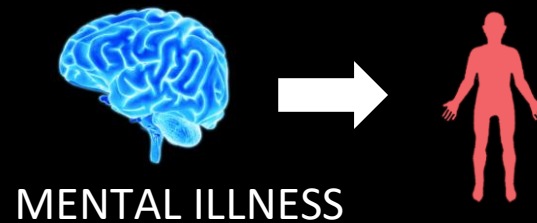
Psychophysiological



Secondary psychiatric



Primary psychiatric



Primary psychiatric



MENTAL ILLNESS

- No dermatologic cause
- Patient resists talking about their disease in psychological terms
- Treating the skin rarely resolves the problem
- Common categories:
 - neurotic excoriation
 - trichotillomania
 - delusional infestation

Three critical concepts:

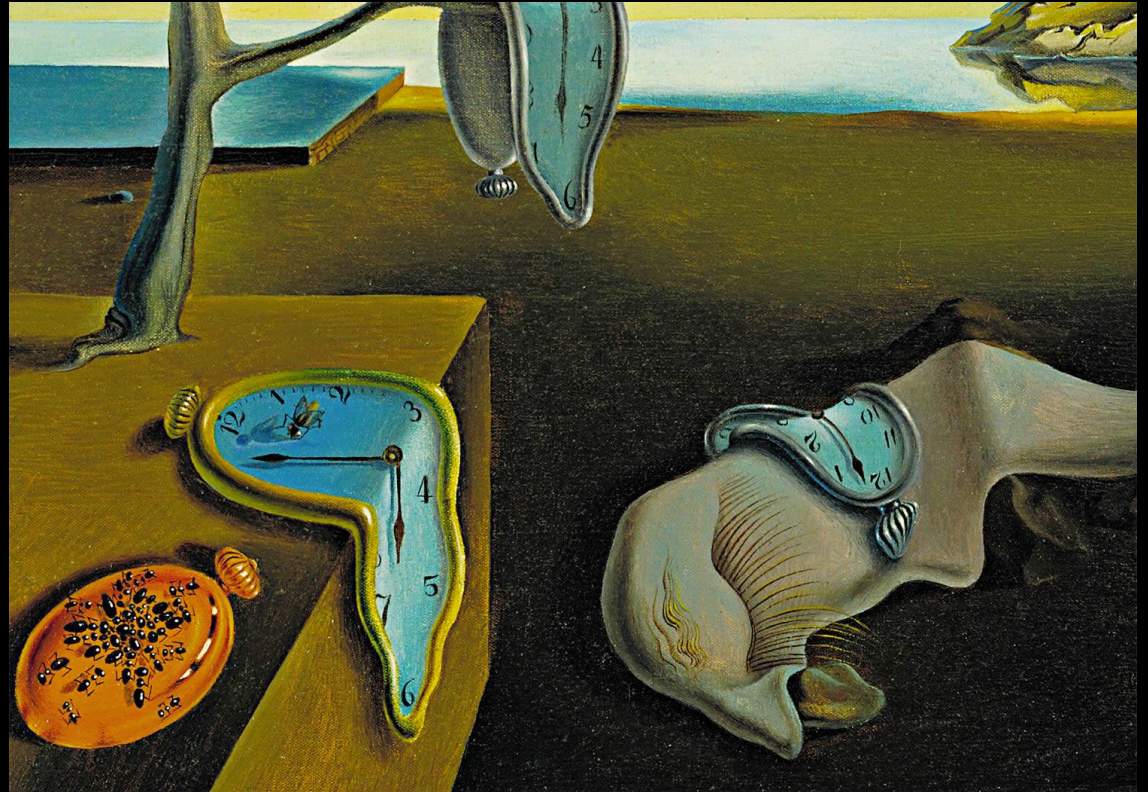


- Recognize the condition
- Build a therapeutic alliance
- Understand the treatment

Recognize the condition



What is delusional infestation?



"I made a drastic decision, and with the savagery proportionate to my frantic condition and my horror I seized a razor blade, held the tick tightly between my nails and began to cut the interstice between the tick and the skin. (...) in a frenzy I cut and cut and cut, blinded by the blood which was already streaming. The tick finally yielded, and half-fainting, I fell to the floor in my own blood."

History & Epidemiology

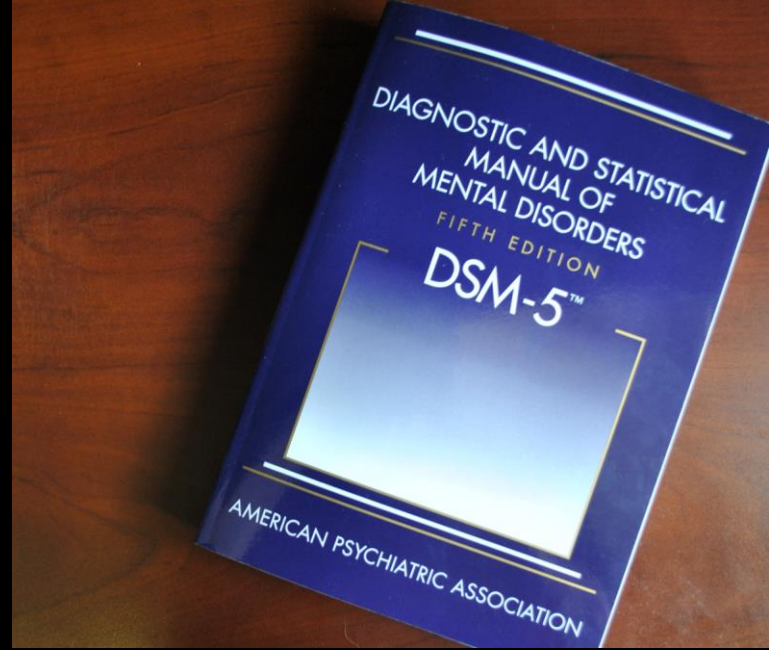


Karl-Axel Ekblom

- 80 cases per million per year
- bimodal age distribution, F>M

1937: “The Pre-Senile
Delusion of Infestation”

Diagnostic criteria: delusional disorder



- fixed, encapsulated delusion revolving around 1 concern
- may have hallucinations related to the delusion
- NO: schizophrenia, disorganized speech, catatonia, other odd behaviors, drugs

Clinical diagnosis: Delusional Infestation

- 1) Conviction of being infested by animate or inanimate pathogens without evidence of infestation
- 2) Abnormal cutaneous sensations explained by this conviction

Initial Presentation

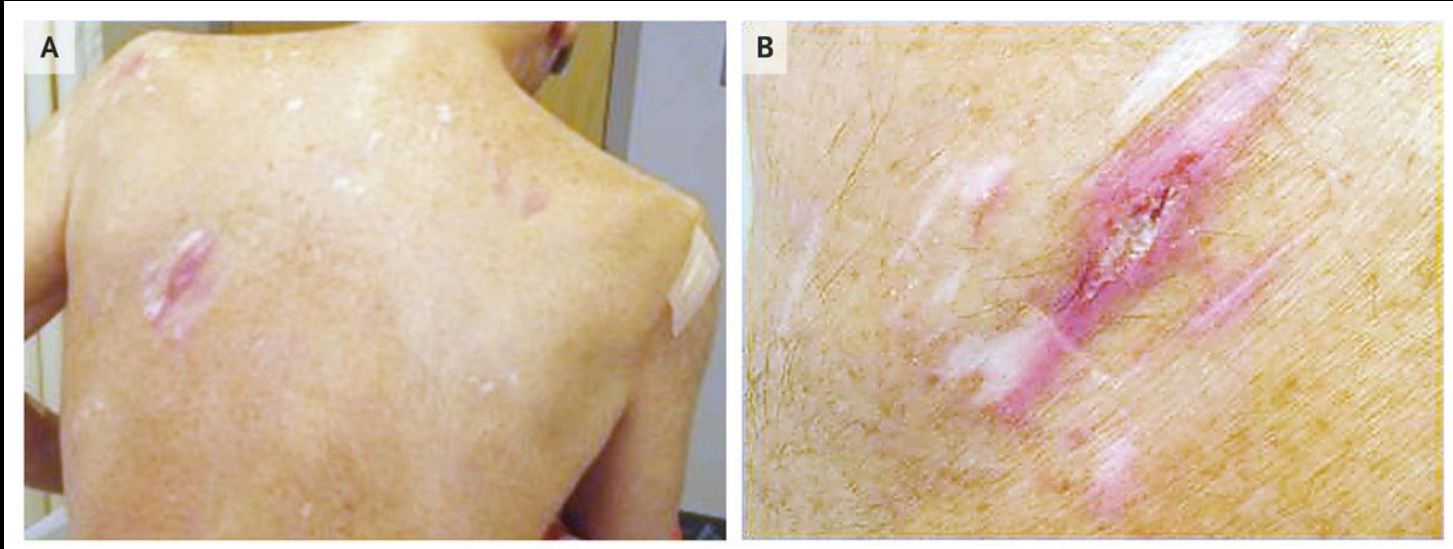


Initial Presentation

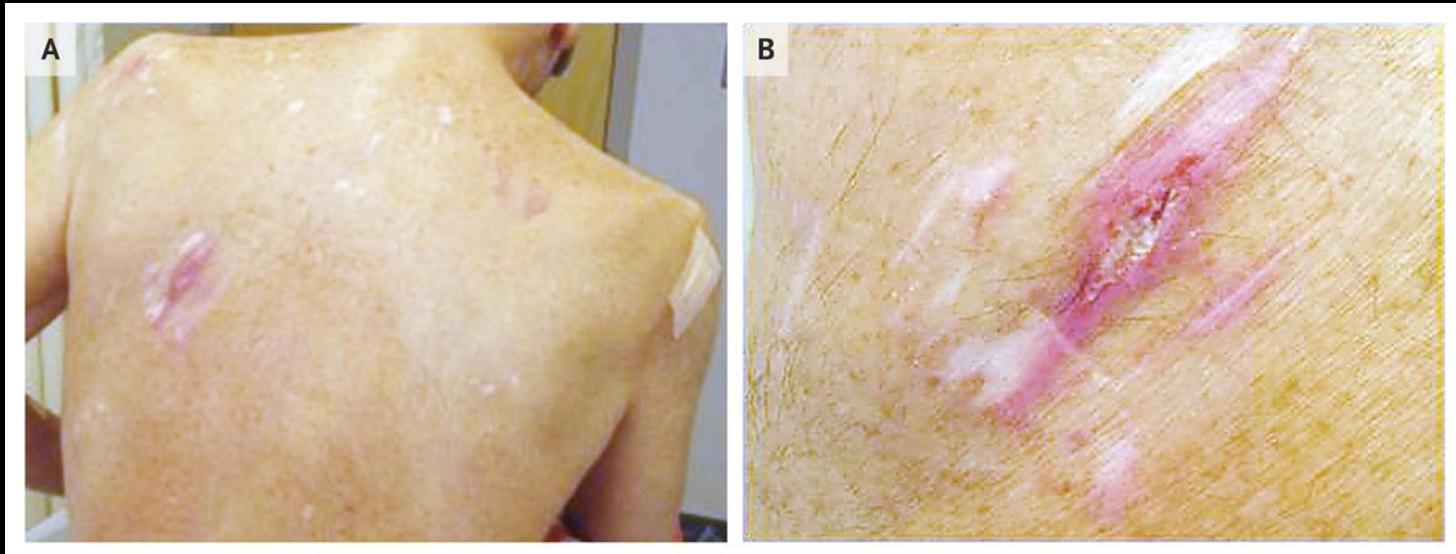
PCP's and emergency providers are first line



Initial Presentation

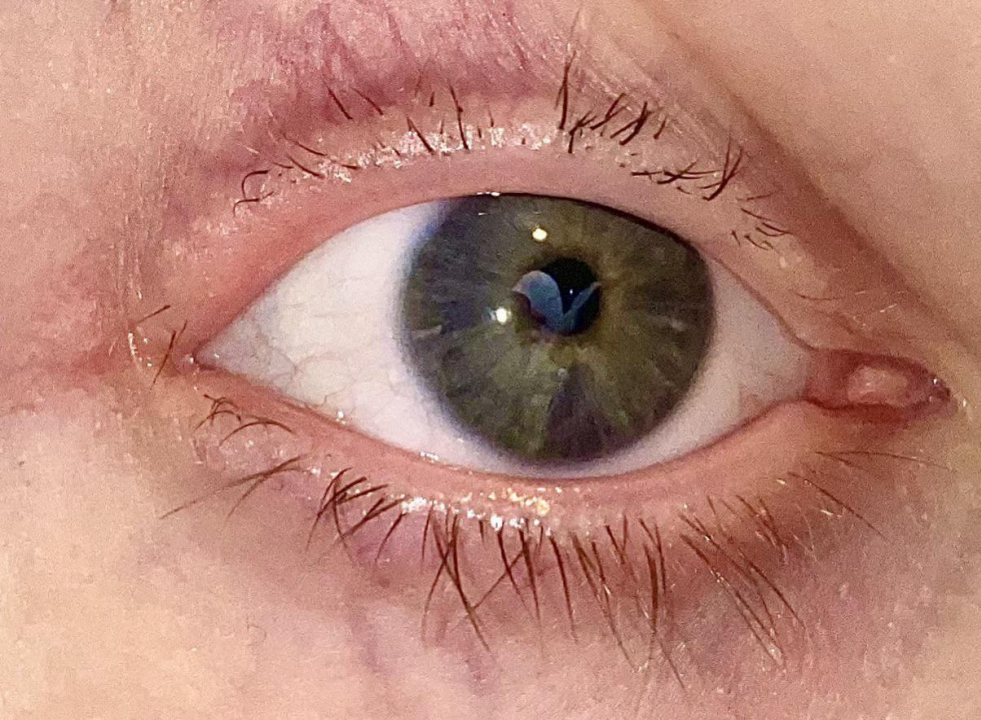


Initial Presentation



“If we don’t find infection, how will you feel?”









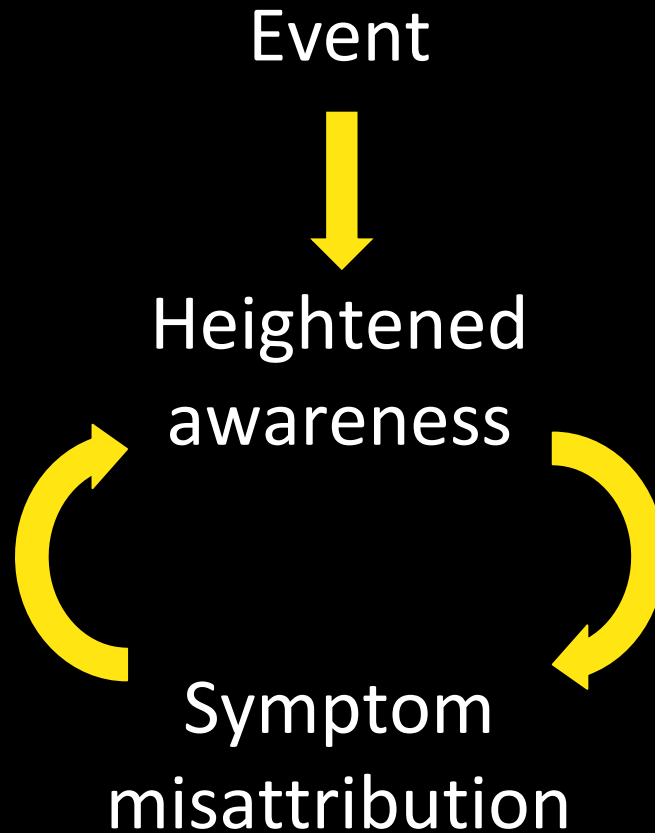




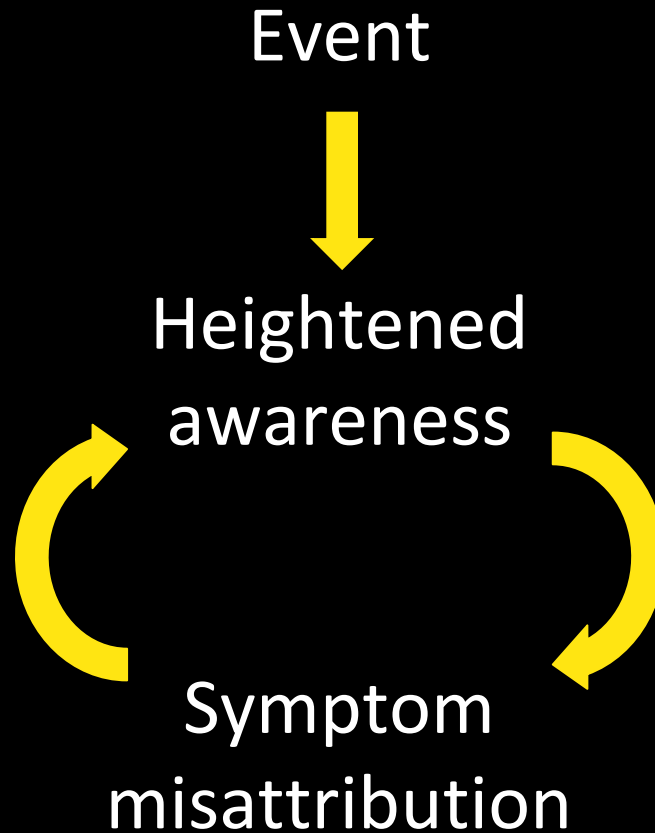
Theory of onset: Event



Theory of onset

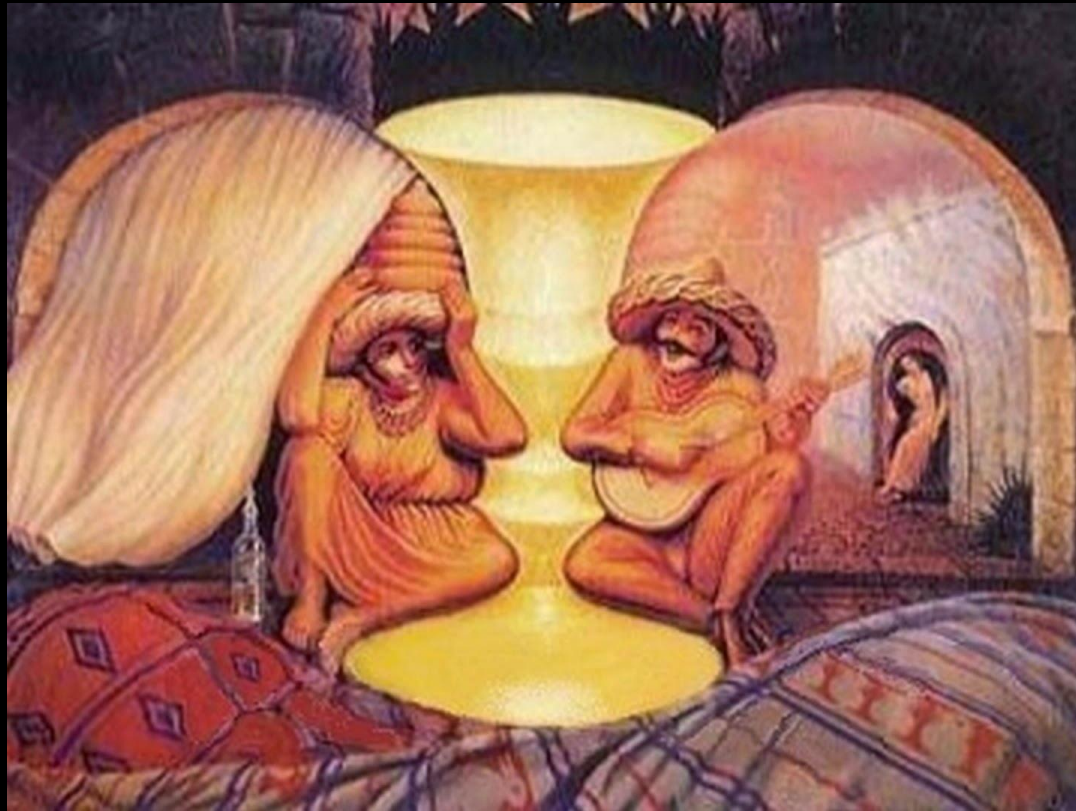


Theory of onset

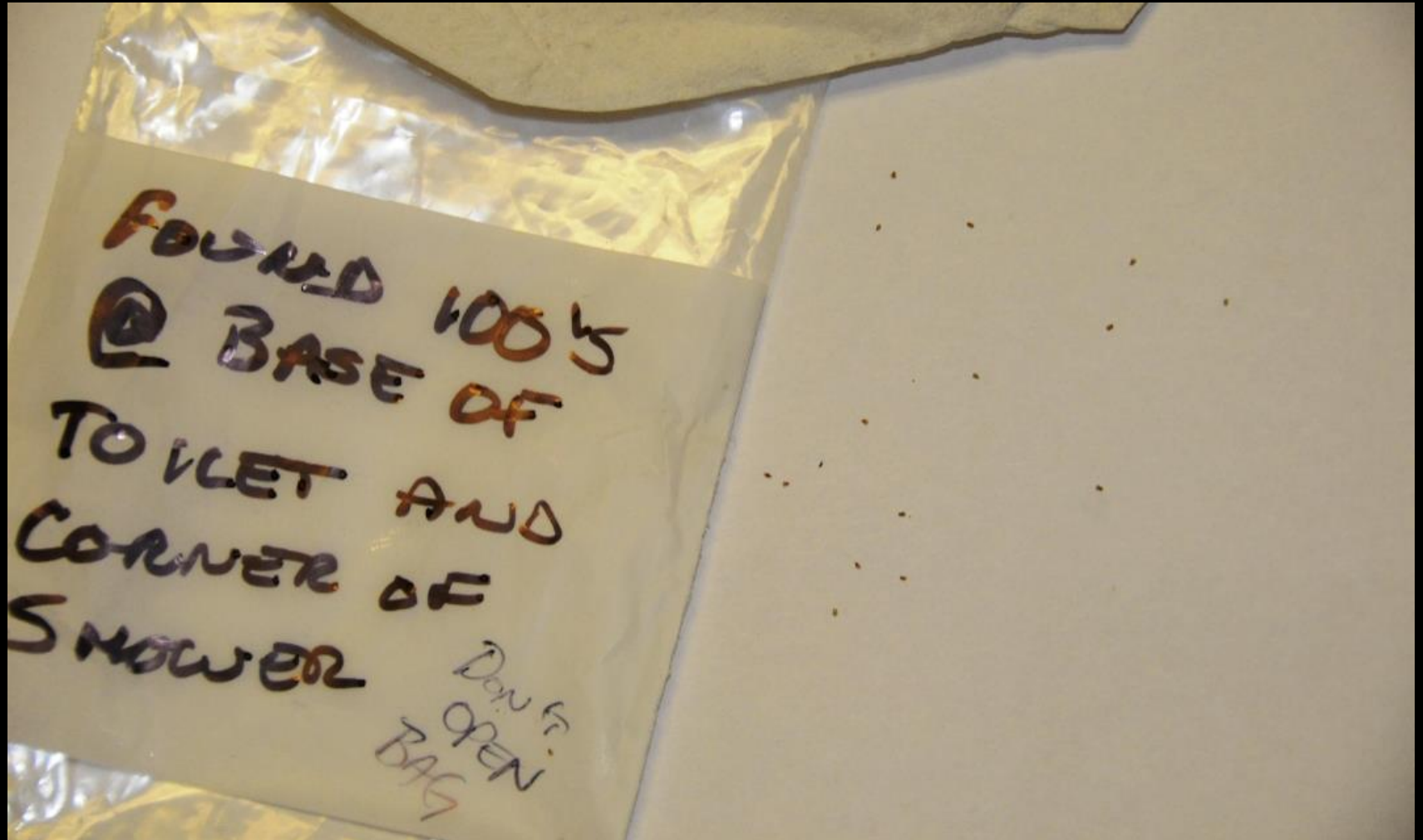


** Documented infections predate DI in only 2% of cases*

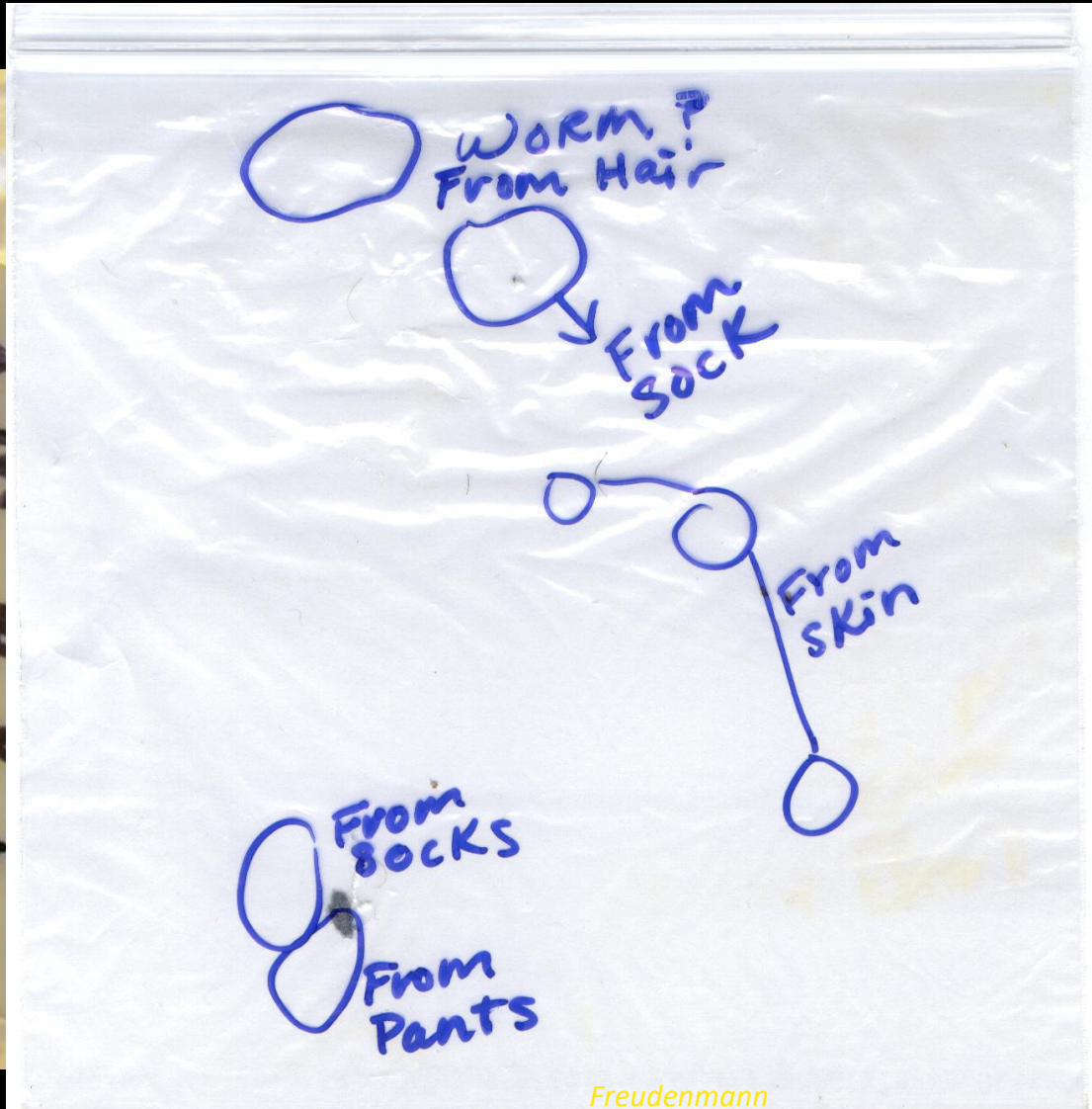
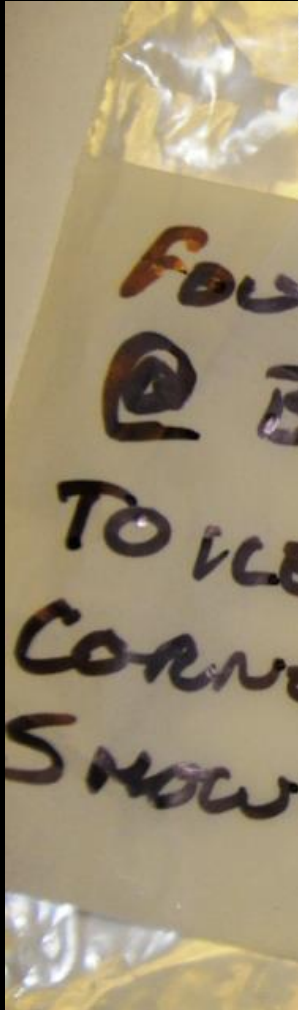
“Folie a deux”



Specimen Sign

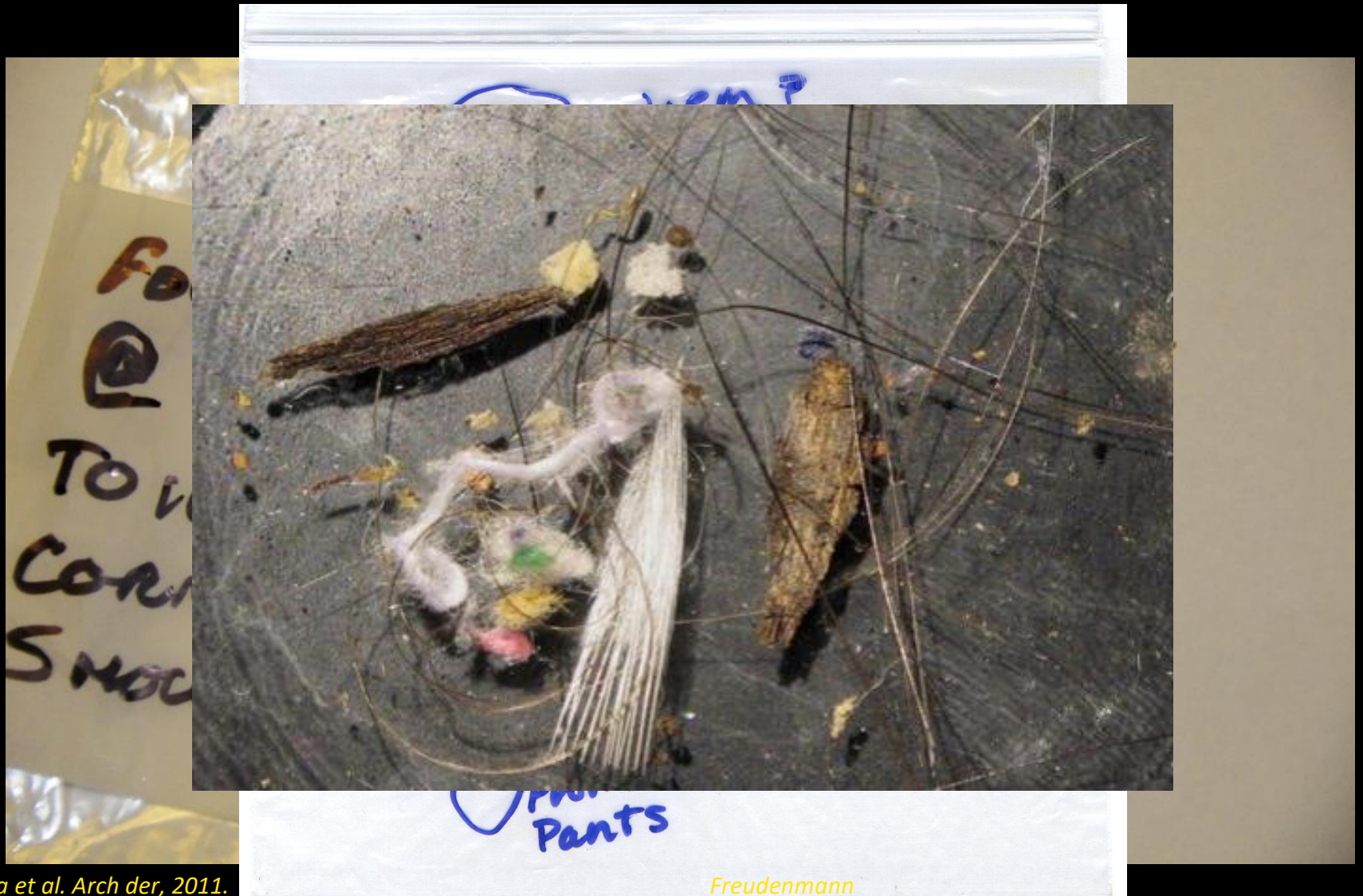


Specimen Sign



Freudenmann

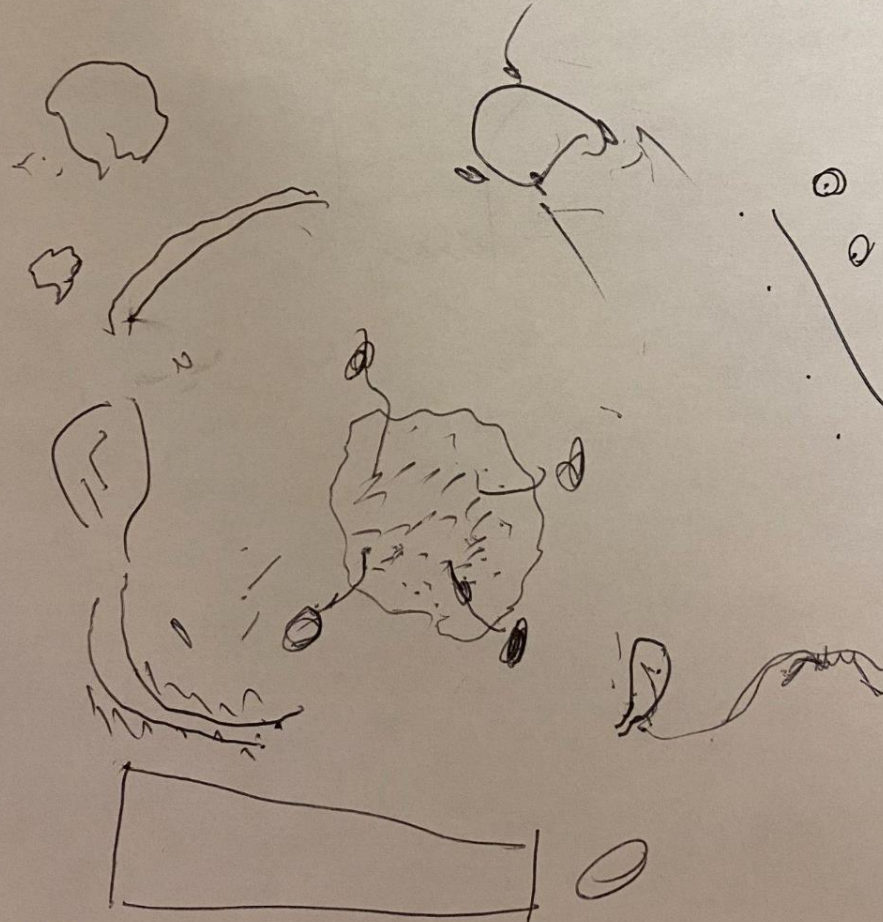
Specimen Sign





SEATTLE MAIN CLINIC

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VMMC Form 92752 (9/19)

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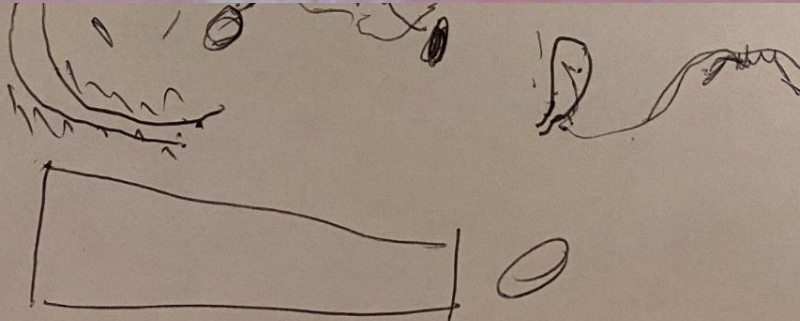


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Seattle, WA 98101
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MY MORGELLONS IS REAL!!



VMMC Form 92752 (9/19)

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Delusional parasitosis: six-year experience with 23 consecutive cases at an academic medical center

Andrea K. Boggild^a, Bret A. Nicks^b, Leslieanne Yen^c, Wesley Van Voorhis^c, Russell McMullen^d, Frederick S. Buckner^c, W. Conrad Liles^{c,e,*}

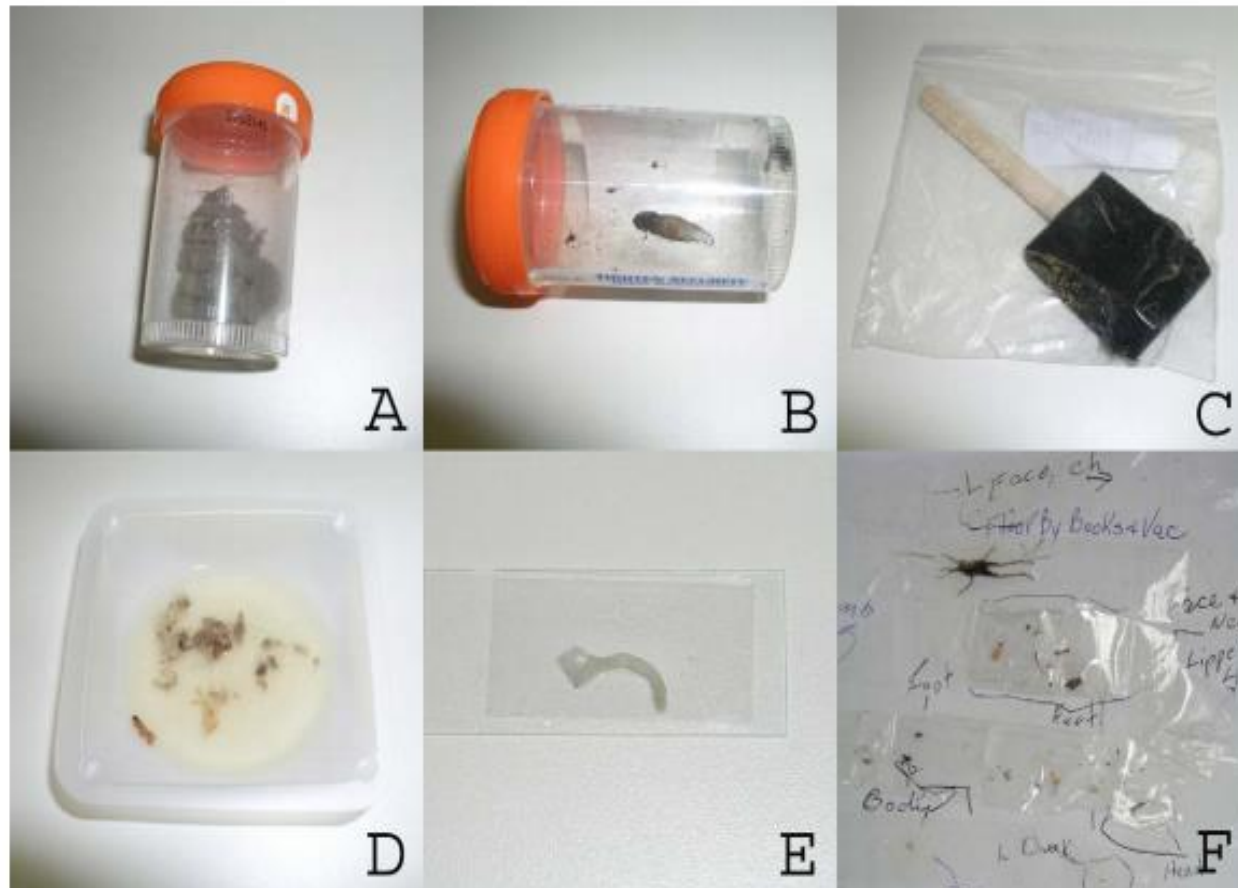


Figure 1. Representative specimens from patients with delusional parasitosis sent to the laboratory for microbiologic examination: (A) urine collection container containing dust and lint; (B) urine collection container containing a garden grub; (C) paint sponge with exfoliated skin cells; (D) specimen from urine collection container containing organic plant matter, hair, and carpet fibers; (E) toenail clipping sent as a 'worm'; (F) multiple specimens from a patient organized according to source.

Recognize Contributing Conditions

Recognize Contributing Conditions

J Am Acad Dermatol. 2017 Oct;77(4):778-779. doi: 10.1016/j.jaad.2017.06.024.

An international study of the prevalence of substance use in patients with delusional infestation.

Lepping P¹, Noorthoorn EO², Kemperman PMJH³, Harth W⁴, Reichenberg JS⁵, Squire SB⁶, Shinhmar S⁷, Freudenmann RW⁸, Bewley A⁹.

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Delusional parasitosis secondary to severe iron deficiency anemia.

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Three cases of delusional parasitosis caused by dopamine agonists.

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Indian J Psychol Med. 2017 May-Jun;39(3):347-349. doi: 10.4103/0253-7176.207347.

Postherpetic Neuralgia Presenting as Delusional Parasitosis: A Case Series.

Tripathi SM¹, Singh P¹, Pandey NM¹.

Recognize Contributing Conditions

- Secondary DI is common – up to 60%
- Review of systems
- Medication list: dopamine agonists, opiates, steroids, stimulants, anti-epileptics, antibiotics

Recognize Contributing Conditions

- Mandatory workup:
 - CBC, CMP, ESR, CRP, TSH
 - UA/urine toxicology (30% Utox positive)

Recognize Contributing Conditions

- Mandatory workup:
 - CBC, CMP, ESR, CRP, TSH
 - UA/urine toxicology (30% Utox positive)
- Optional: HIV, syphilis, hepatitis, B12, folate, allergy testing, skin biopsy

Three critical concepts:

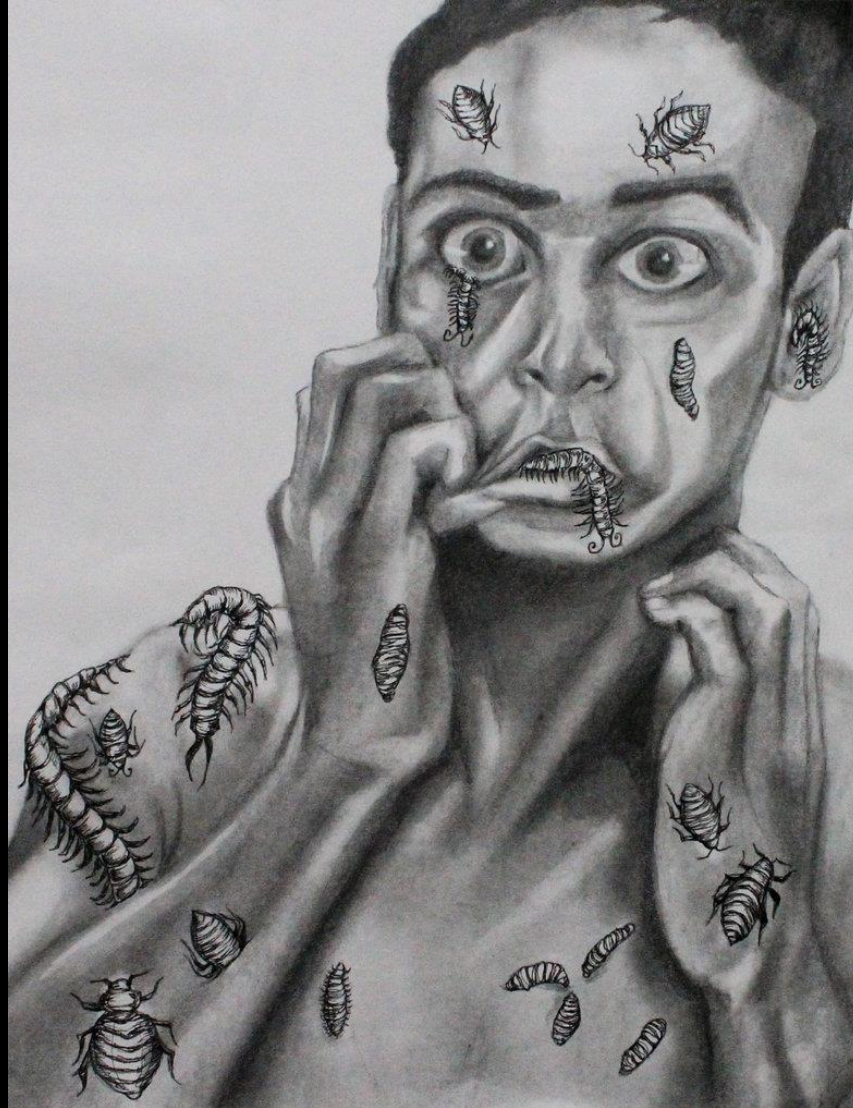


- Recognize the condition
- Build a therapeutic alliance
- Understand the treatment

Build a therapeutic alliance



Ms. L: 54 year old woman with “scalp rash”



Therapeutic Alliance Premise

- Biopsychosocial approach
- First encounter is critical
- Avoid agreement or confrontation
- Acknowledge symptoms

Therapeutic Alliance Steps

- Phase 1:
- Phase 2:
- Phase 3:

Therapeutic Alliance Steps

- **Phase 1: Pre-visit preparation and boundaries**
 - Time & emotions
- Phase 2:
- Phase 3:

Therapeutic Alliance Steps

- Phase 1: Pre-visit preparation and boundaries
 - Time & emotions
- Phase 2: **Establish rapport**
 - Positivity & affirmation
- Phase 3:

Therapeutic Alliance Steps

- Phase 1: Pre-visit preparation and boundaries
 - Time & emotions
- Phase 2: Establish rapport
 - Positivity & affirmation
- Phase 3: **Engage in a thorough workup**
 - Agree to disagree

Three critical concepts:



- Recognize the condition
- Build a therapeutic alliance
- Understand the treatment

Understand the treatment



Treatment:

Treatment: antipsychotics

“In all cases, prescribing an antipsychotic medication is the most definitive intervention that the clinician can offer”

Treatment: antipsychotics

- >40 years as first line treatment
- 1st, 2nd, 3rd generation all similar efficacy
- pimozide → risperidone

Who manages treatment?



- Multidisciplinary approach is ideal
- Psychiatric and dermatologic treatments work best together
- Only 15% of dermatologists prescribe antipsychotics

Efficacy

Psychopathology. 1995;28(5):238-46.

100 years of delusional parasitosis. Meta-analysis of 1,223 case reports.

Trabert W¹.

- Improved remission rates starting in 1960's

Efficacy

Systematic review of antipsychotics for DI

- 60-100% remission
- Depot (injectable) : 93% remission
- Therapy without antipsychotic was ineffective

2nd Generation Antipsychotics: Efficacy

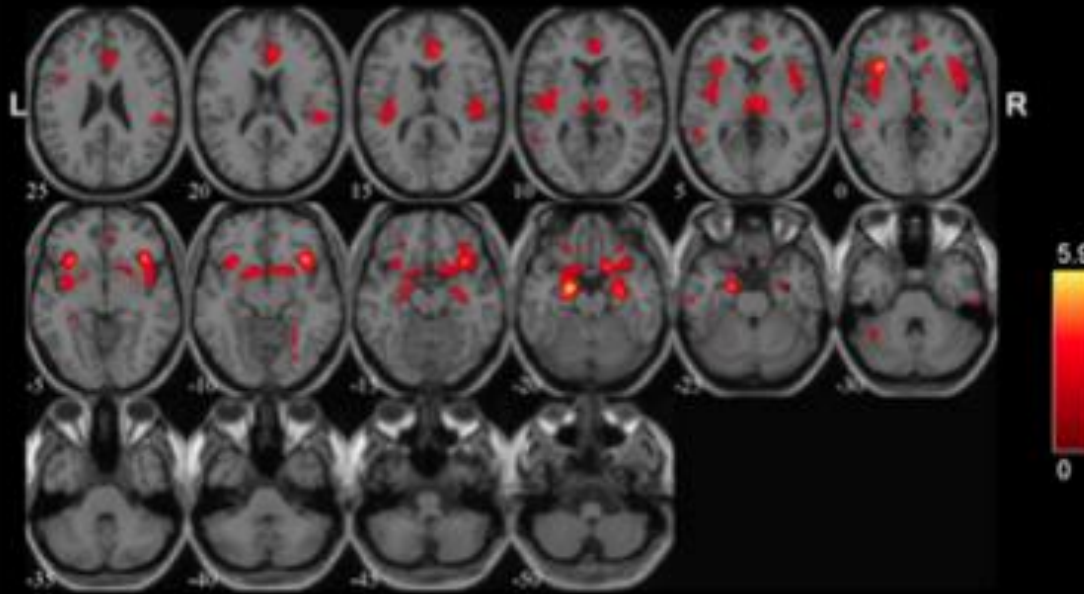
UCSF Dermatology-Psychiatry clinic:

- 78% of patients improved on low dose risperidone

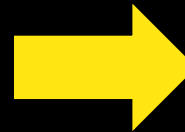
“...very low doses of atypical antipsychotics have been so effective in our patients...”

DI brains are abnormal

grey matter volume: controls > DI



Volume loss in areas
regulating body perception
and probabilistic reasoning



Favor delusion
over a more
benign explanation

Antipsychotics: Duration of Therapy

```
graph LR; A[2 weeks: improvement] --> B[2 months: max effect]; B --> C[3 months: maintain]; C --> D[Taper every 2 weeks]
```

2 weeks:
improvement

2 months:
max effect

3 months:
maintain

Taper
every 2
weeks

Back to Ms. L...



Back to Ms. L...

2 weeks:

“I cannot eat and I
cannot sleep”

Started quetiapine



Back to Ms. L...

4 weeks:

Bugs are gone,
but other
infections remain

2 weeks:

“I cannot eat and I
cannot sleep”

Started quetiapine



Back to Ms. L...

4 weeks:

Bugs are gone,
but other
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2 weeks:

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12 weeks:

Quetiapine →
olanzapine
6 lb weight gain
“It’s possible I was
just seeing worms”

Back to Ms. L...

4 weeks:

Bugs are gone,
but other
infections remain

16 weeks:

Olanzapine →
nortriptyline
ED , ENT for
sinus fungus

2 weeks:

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Back to Ms. L...

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12 weeks:

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“It’s possible I was
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20 weeks:

Back on
olanzapine



Back to Ms. L...

4 weeks:
Bugs are gone,
but other
infections remain

16 weeks:
Olanzapine →
nortriptyline
ED , ENT for
sinus fungus

32 weeks:
“I can’t believe I
thought I had
worms”

2 weeks:
“I cannot eat and I
cannot sleep”
Started quetiapine

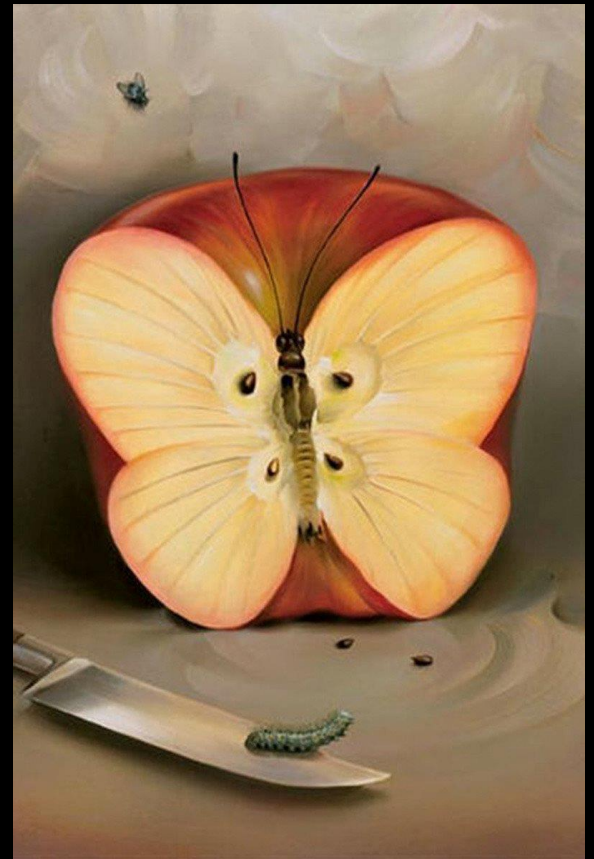
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Three critical concepts:

- Recognize the condition
- Build a therapeutic alliance
- Understand the treatment



“Treating the delusional patient is the ultimate test of a physician’s bedside manner and ability to empathize and connect with patients.”

Heller et al, Int J Dermatol 2013



SALVADOR DALÍ 1929

Thank you!

Natalie.Moriarty@virginiamason.org