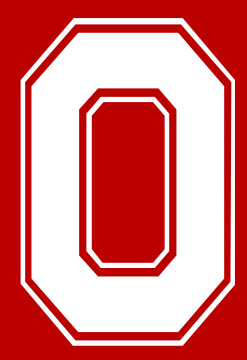


Getting Under Your Skin: A Case of Diffuse Eczematous Dermatitis Presenting with Severe Hyperactive Delirium



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Background

- Increasing attention is being paid to the role of proinflammatory cytokines in mediating the onset of delirium and other neuropsychiatric conditions (Benros et al, 2014).
- Patients presenting with the combination of severe dermatoses and acute neurobehavioral changes demonstrate visible evidence of cytokine dysregulation across multiple organ systems.
- Accordingly, the impact of systemic inflammation and its treatments should be assessed carefully by the consulting psychiatrist in formulating the etiology and management of co-occurring behavioral disturbances.

Images



Figure 1: Morbilliform Eruption
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Figure 2: Morbilliform Eruption
Retrieved from Medscape

Conclusion/Implications

- This case illustrates the emerging awareness of:
 - The impact of circulating proinflammatory cytokines on the mind-skin interface
 - Potential for proinflammatory cytokines to mediate severe simultaneous behavioral and dermatologic pathology
- Appreciating the psychiatric impact of systemic inflammation can reinforce:
 - Bedside diagnostic precision of delirium
 - Promote further understanding of the role of inflammation in the prevention and management of hyperactive delirium and other neuropsychiatric disorders

Case Presentation

A 57-year-old male was sent to the emergency department from a correctional facility with a diffuse full body rash

Several days of behavioral changes (**agitation, altered awareness, hallucinations**) consistent with **severe hyperactive delirium**.

Upon arrival, he received multiple doses of intramuscular haloperidol, diphenhydramine, lorazepam, and ketamine with limited improvement.

Consultants from the psychiatry and dermatology teams also identified a previous episode of eczematous dermatitis accompanied by severe behavioral changes (delirious agitation, hallucinations) that improved with paliperidone.

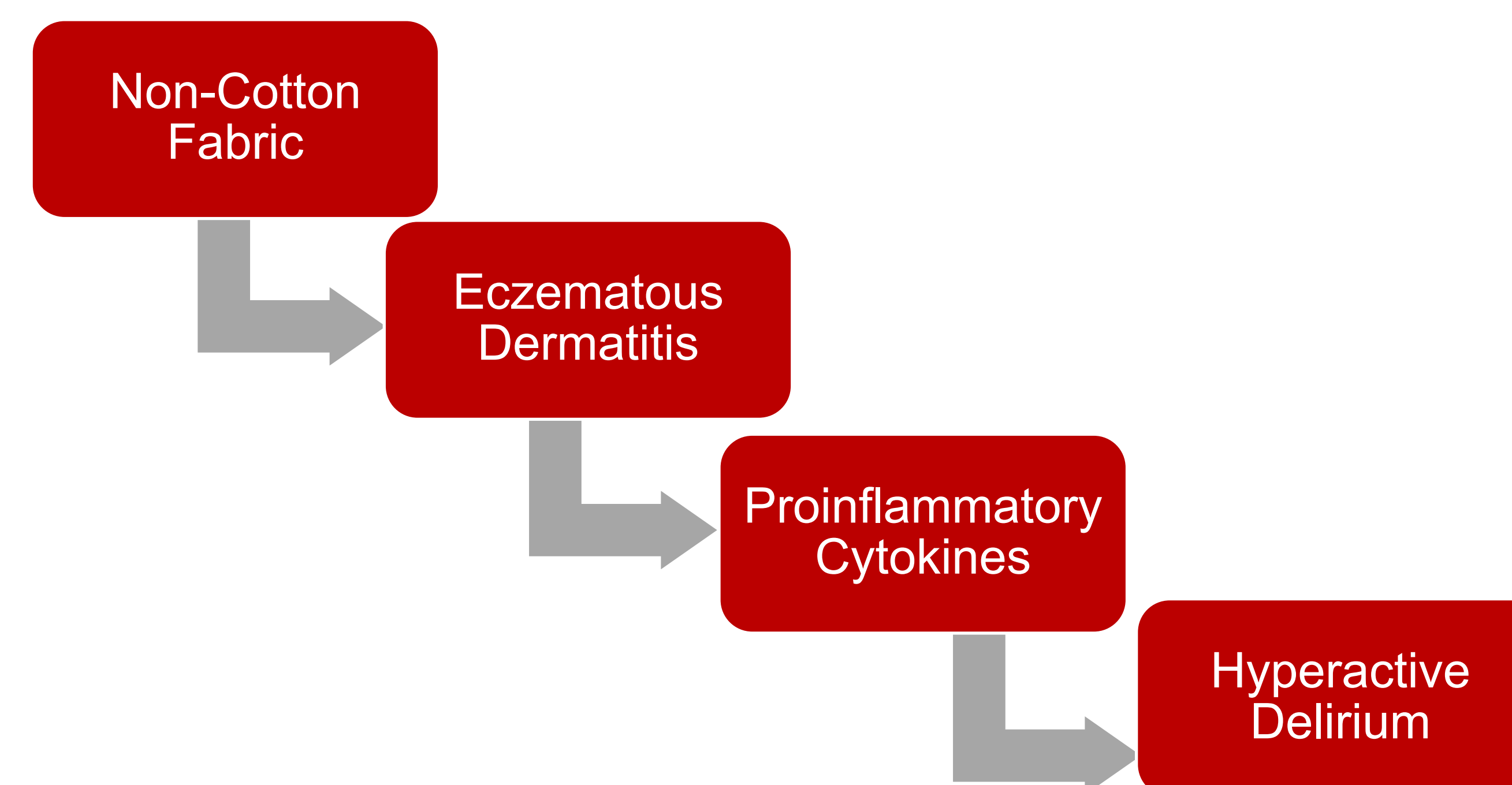
Dermatologic assessment excluded the possibility of DRESS or other drug eruption after psychotropic medication exposure

Diagnostic differential favored severe eczematous dermatitis potentially associated with an **allergy to non-cotton fabrics**.

Dermatology diagnostic differential favored severe eczematous dermatitis potentially associated with an allergy to non-cotton fabrics.

Additional management with topical steroids, guanfacine, hydroxyzine, chlorpromazine, olanzapine, and 100% cotton linens were effective in calming his behavior and cutaneous discomfort

Sustained improvement in his awareness and behavior led to hospital discharge without the need for ongoing psychotropic medications.



Discussion

- Atopic disorders (eczema, asthma, allergic rhinitis) and other autoimmune problems can: increase the risk of neurobehavioral symptoms due to increased serum levels of cytokines such as IL-1 and IL-6. (Begemann et al, 2019).
- Similar proinflammatory cytokine changes have also been reported in the CSF of patients with delirium, dementia, and schizophrenia (Simone et al, 2019).
- Aside from the two documented episodes of neurobehavioral changes in the context of severe eczematous rashes, this patient did not have any other history of psychiatric illness.
- Key drivers of a successful outcome included:
 - Prompt hospital evaluation
 - Thorough review of reports from corrections staff and medical records
 - Collaboration between consulting dermatology and psychiatry teams
 - Accurate diagnostic formulation and maintaining the safe use of emergency psychiatric medications.

References

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