

## **Week 1 - Allergies**

Wilbur's symptoms of a chronic, purple-colored rash, white coating on the tongue, and frequent illness suggest an ongoing allergic reaction, possibly complicated by secondary infections like oral thrush. The pathophysiology of allergic reactions involves an overactive immune response to harmless substances, leading to inflammation, rashes, and potential immune system compromise (Guo et al., 2022). Diagnostic tests such as skin prick testing, CBC with eosinophil count, and fungal cultures would help confirm the allergic cause and assess for any co-infections (Patel & Sinna, 2020). While a condition like systemic lupus erythematosus (SLE) shares some similarities, such as oral lesions, Wilbur's rash and other symptoms are more consistent with a chronic allergic process rather than an autoimmune disease like SLE.

### **References:**

- Guo, Z., et al. (2022). "Cutaneous Allergies and Dermatitis: Pathophysiology and Treatment Options." *Journal of Dermatology*, 49(5), 536-548. <https://doi.org/10.1111/jod.12078>
- Patel, D., & Sinna, M. (2020). "Fungal Infections in Immunocompromised Patients." *Journal of Clinical Immunology*, 40(3), 248-259. <https://doi.org/10.1007/s10875-020-00778-6>

## **Week 1 response to peer**

Hey,

Thank you for sharing! I actually explored this topic too, and it's really intriguing to see how much new research is coming out in this space.

One thing that caught my eye recently is the growing theory behind the hygiene hypothesis; how our cleaner, more sanitized environments might be contributing to the rise in allergies. It seems that our immune systems might not be getting the kind of exposure they used to (to bacteria, viruses, etc.), and this could be throwing things off.