

Introduction

Finding a lesion on someone that's **Hypopigmented** isn't a big deal, but it's often the subject of board examinations. There isn't one algorithm to follow - just a loose group of associations to remember - which is perfect for building a summary table.

Tinea Versicolor

When there's a **patchy depigmentation** one of the things to consider is a fungal infection with **Malassezia globosa**. A normal fungus present in skin flora, it's unclear what causes it to overgrow, though **Cushing's** and **Immunosuppression** are risk factors. Hypopigmentation is a result of inhibited melanin production. Patients present with **small scaly patches of varying color** (typically in summer, as these spots don't tan). Diagnosis is made by **KOH prep** of the scale that reveals **hyphae + spores** that looks like "spaghetti and meatballs." Treat with topical **selenium sulfide**.

Vitiligo

An **autoimmune disease** that causes **small sharply demarcated depigmented macules or patches** with irregular borders that can coalesce. They're usually found on the **extremities, face, and genitalia**. Lesions can be picked up by the **Wood's Lamp Test** (no pigment at all), but definitive diagnosis is confirmed by the **absence of melanocytes** on histology. It's associated with autoimmune disorders such as hypothyroidism and lupus. Treatment is often ineffective. Steroids and UV light have been attempted.

Albinism

If a patient is **completely white** with **pale hair** and **pale eyes** they likely have albinism. It's a **genetic disorder** of **tyrosinase** (normal melanocytes, deficient enzyme) so there is no treatment; the diagnosis is clinical. Simply protect these people from UV exposure and educate on preventing skin cancer. Albinism is tested against Piebaldism and PKU, which can result in pale-skinned kids.

Ash Leaf

A **child** with a single hypopigmented (**NOT depigmentation**) spot that's positive on **Wood's Lamp** is an Ash Leaf Spot and pathognomonic for **Tuberous sclerosis**. Watch for early onset seizures. Get a CT scan to visualize the tubers in the brain. Look for **Shagreen patches** and adenoma sebaceum.

*Piebaldism is **inadequate melanocyte migration** with a **white forelock** on the scalp)*

*Albinism is **inadequate tyrosinase activity**, total depigmentation in all surfaces*

*PKU is a deficiency in phenylalanine hydroxylase, causing a **relative deficiency of tyrosine**. Screened for at birth. Intellectual disability, seizures follow if not for a special diet*

Shagreen patches (elevated fleshy collagen plaques)

Adenoma Sebaceum (hyperplastic blood vessels)

<i>Dz</i>	<i>Patient</i>	<i>Diagnosis</i>	<i>Biopsy</i>	<i>Treatment</i>	<i>Path</i>	<i>Risk Factors</i>
Tinea Versicolor	Small Patchy Scales of varying color Back and Chest	KOH Prep "spaghetti and meatballs"	Ø	Topical selenium Sulfide	Overgrowth of fungus (normal flora)	Cushing's Immuno↓
Vitiligo	Macule or Papule on Hands and Face	Wood's Lamp enhances lesion	Absent Melanocytes on histo prep	Ø tx Ppx vs Sun	Autoimmune	Other Autoimmune
Albinism	All body		Genetic Testing	Ø tx Ppx vs Sun		
Ash Leaf	Hypopigmented lesion from birth	Wood's Lamp then CT	Ø	See Peds		