Cutaneous Manifestation Of Systemic Diseases

Objectives :

- To highlight the relation between skin manifestations and common systemic disorders.
- To understands various skin clues and their importance in investigating and managing different systemic diseases.
- This lecture is not meant to be inclusive but to highlight important aspects in their diagnosis and management.

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Sources: *doctor's slides and notes FITZPATRICK color atlas +433 team male + 434 team*

[**Color index :** Important | Dr's Notes | Males' Notes | Extra]

❑Systemic diseases:

Endocrine diseases	Gastrointestinal diseases	Renal diseases	Hyperlipidemia

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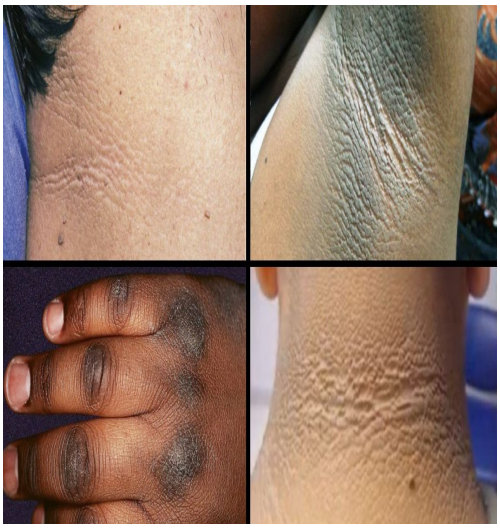
➢ Cutaneous manifestations of endocrine diseases:

A. Diabetes mellitus

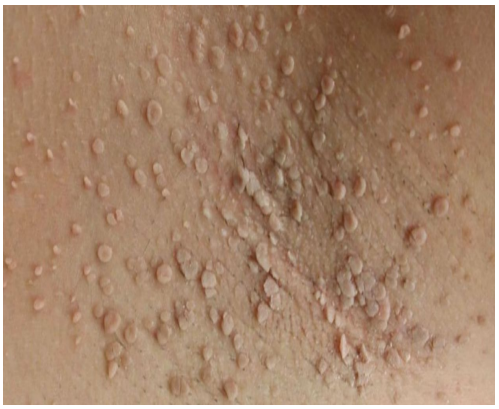
Acanthosis Nigricans

- ➔ **Velvety hyperpigmentation** of the intertriginous/flexural areas (body folds and creases) and less often, extensor surfaces.
- ➔ Commonly associated with insulin resistance and Obesity.
- ➔ Increased insulin, which binds to insulin-like growth factor receptors to stimulate the growth of Keratinocytes and dermal Fibroblasts.
- ➔ More common in Hispanics and people of African descent.
- ➔ Can be associated with an internal malignancy (gastric adenocarcinoma).
- ➔ Tx: Weight reduction and treat the underlying cause "decrease insulin resistance".



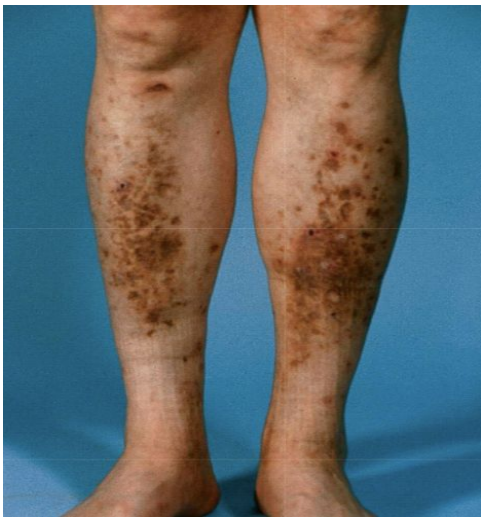
Acrochordrons "Skin tags"

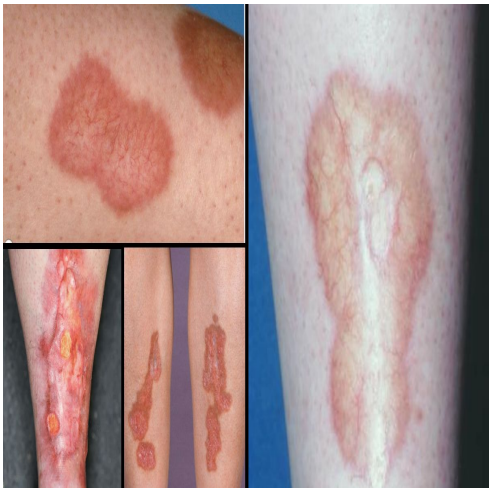
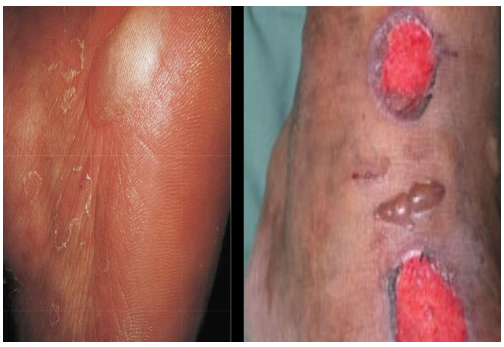
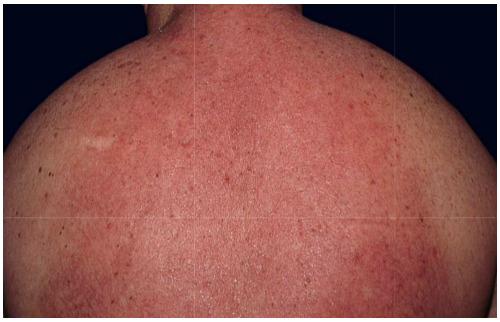
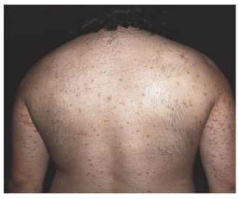
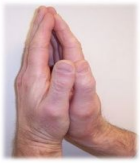
- ➔ Very common.
- ➔ **Soft papules, skin colored, pedunculated papules.**
- ➔ On the eyelids, the neck, the axillae and groin.
- ➔ Asymptomatic.
- ➔ Can get irritated or infected.
- ➔ Mostly associated with obesity and insulin Resistance.
- ➔ If numerous usually on top of acanthosis nigricans.
- ➔ Tx: Cosmetic removal.

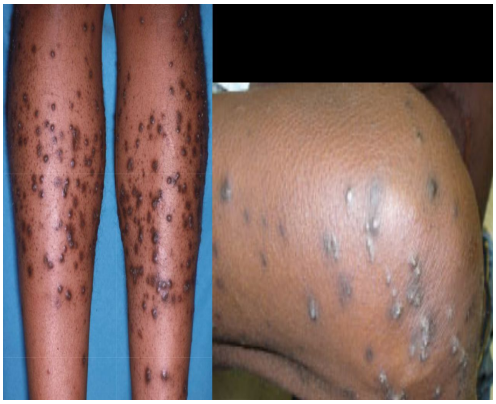
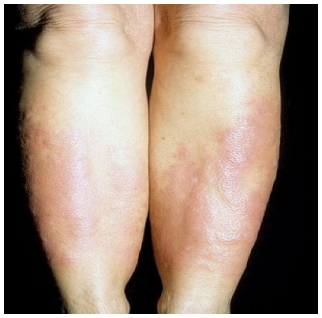
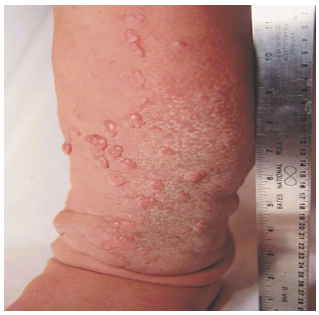
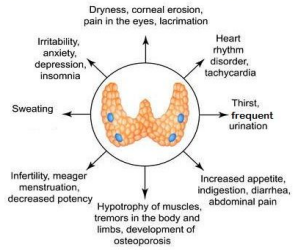


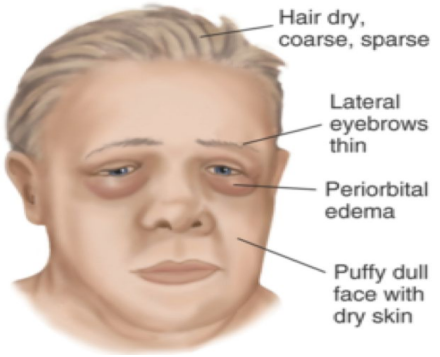
Diabetic Dermopathy

- ➔ **The most common cutaneous sign of DM.**
- ➔ Brown atrophic macules and patches on the legs.
- ➔ **Hyperpigmented papules and plaques on Shins.**
- ➔ Possibly precipitated by trauma.
- ➔ Men are affected more often than women.
- ➔ Possibly related to diabetic neuropathy and vasculopathy.
- ➔ They usually do not require treatment and tend to resolve after a few years **with improved blood glucose control.**



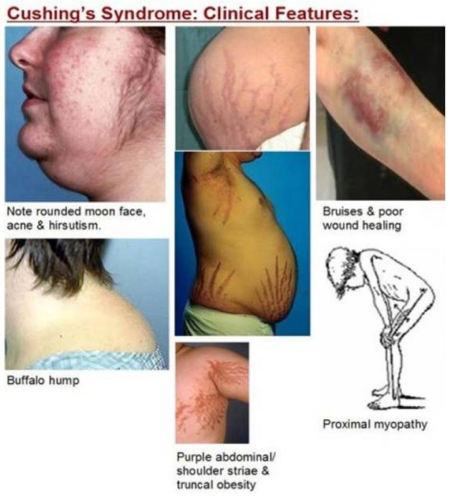
Necrobiosis Lipoidica Diabeticorum	➔ **Plaque with violaceous to red-brown, palpable peripheral rims and yellow-brown atrophic centers with telangiectasia.** ➔ The most common site is the **shins**. ➔ Ulceration can occur following trauma. ➔ Histopathology: shows tiered granulomatous Reaction. ➔ The proportion of patients with DM varies from 15% to 65%. ➔ Only 0.03% of patients with DM have NLD. ➔ Pathogenesis is unknown. ➔ Tx: Control of blood glucose does not have significant effect. Can improve with **topical/intralesional steroids,** tacrolimus, phototherapy, cyclosporine, and rarely surgery.	
Bullous Diabeticorum	➔ A rare condition associated with DM. ➔ **Tense blisters develop on normal-appearing skin in acral sites (feet, lower legs, hands).** ➔ There is frequently an association with **peripheral neuropathy**. ➔ Spontaneous healing usually occurs within 2 to 6 weeks. ➔ Heals without scarring.	
Scleredema Diabeticorum	➔ More common in males, often obese, with longstanding, uncontrolled diabetes, that have frequently suffered complications of diabetes (neuropathy, nephropathy, retinopathy, atherosclerosis). ➔ Presents as **woody induration** and **thickening of the skin** of the mid upper back, neck, and shoulders. ➔ Thickening of the hands with tiny papules on fingers and stiff joints. ➔ Pebbled knuckles (or **Huntley papules**) are multiple minute papules, grouped on the extensor side of the fingers, on the knuckles, or on the periungual surface Generalized asymptomatic thickening of the skin **(diabetic stiff skin).** ➔ Diabetic stiff hand syndrome, also known as diabetic cheiroarthropathy, is a disorder in which finger movement becomes limited as the hands become waxy and thickened."Pic;Prayer sign" ➔ Scleredema on upper back and neck. ➔ Can be associated with infection and **monoclonal gammopathies**. ➔ Control of diabetes does not affect the course of scleredema.	  Figure 149 Massive eruptive xanthomata in a young man with type 2 diabetes mellitus  CONTD.... ● **Prayer Sign:** Patient is unable to approximate the palmar surface of phalangeal joints despite of maximal effort. ● **Palm Print Test:** Degree of inter-phalyngeal joint involvement can also be assessed by scoring the ink impression made by the palm of dominant hand.   

Acquired Perforating Dermatosis	➔ A skin disorder occurring in patients **with chronic renal failure**, DM or both. ➔ Histopathology: Characterized by the transepidermal elimination of both collagen and elastic fibers. ➔ They present as 2-10 mm, firm, **Pruritic hyperkeratotic papules,** often umbilicated papules occurring on the trunk and extremities. ➔ Tx: Topical keratolytics, phototherapy, topical/systemic retinoids, topical/intralesional steroids and oral antihistamines, and cryotherapy.	
Bacterial and Fungal infections	➔ Pyodermic infections such as impetigo, folliculitis, carbuncles, furunculosis, ecthyma, and erysipelas can be more severe and widespread in diabetic patients. ➔ Erythrasma, caused by Corynebacterium minutissimum mostly on axillae and groin.malignant otitis externa, often caused by Pseudomonas aeruginosa. ➔ Tinea pedis (can lead to cellulitis) and onychomycosis. ➔ Candidal infections like perleche on corners of mouth, and on vulva. ➔ Rare infections like mucormycosis by Phycomycetes and anaerobic cellulitis by Clostridium species.	
B. Thyroid disorders		
Hyperthyroidism	➔ Warm, moist skin. ➔ Palmoplantar hyperhidrosis. ➔ Pruritus. ➔ Diffuse, non-scarring alopecia. Increased risk of alopecia areata. Premature hair graying, alopecia with fine soft thinned scalp hair. ➔ Facial flushing. ➔ Hyperpigmentation of the skin, vitiligo. ➔ Nail changes: Plummer's nails, onycholysis, clubbing. Brittle nails. **<u>Pretibial myxedema:</u>** ● Cutaneous induration of the shins due to mucin deposition. ● Most commonly associated with Graves disease. ● Skin-colored to brown, waxy, indurated nodules/plaques with characteristic peau d'orange appearance. ● Pretibial myxedema: is the most characteristic features of thyrotoxicosis appearing as shiny waxy papules and plaques having orange-skin appearance on the chin of the tibia.	  *Hyperthyroidism Symptoms* 

Hypothyroidism	➔ Coarse, rough, dry skin and Pallor. ➔ Pruritus. ➔ A yellowish hue to the skin due to Carotenemia. ➔ Diffuse hair loss with dull, coarse, brittle hair. ➔ Loss of the lateral 1/3 of the eyebrows. ➔ Myxedematous facies. ➔ Autoimmune disease – vitiligo, alopecia areata. ➔ Slow growing ridged and brittle nails. ➔ Delayed wound healing.	

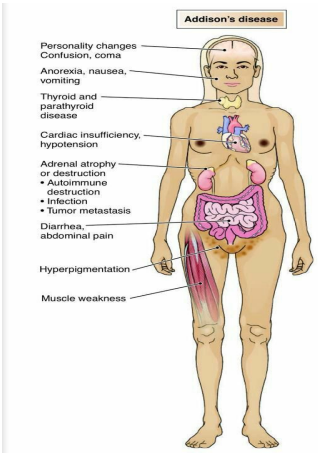
C. Cushing's syndrome

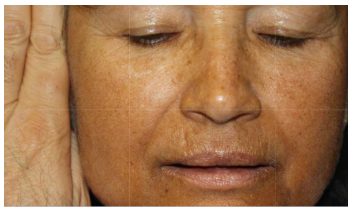
➔ Excessive glucocorticoid activity.
➔ Altered subcutaneous fat distribution: Moon facies, buffalo hump.
➔ Skin atrophy: Striae, prolonged wound healing, purpura and easy bruising.
➔ Telangiectasia on face.
➔ Clitromegaly and male pattern alopecia (**Hamilton pattern**).
➔ Infections: Tinea versicolor, onychomycosis, candidiasis.
➔ Adnexal effects: Corticosteroid-related acne, hirsutism.
➔ Caused by prolonged exposure to high levels of plasma glucocorticoid, adrenocortical hyperplasia, benign or malignant adrenal tumours, ectopic ACTH syndrome – secretion of ACTH by malignant or benign tumours arising in structures other than the pituitary or adrenal glands, exogenous steroid administration.



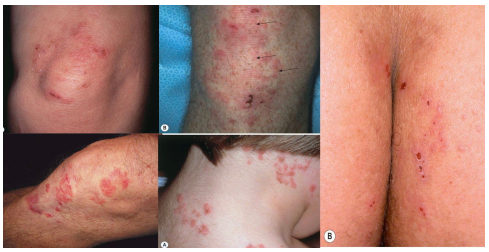
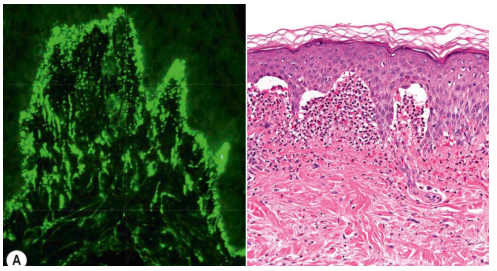
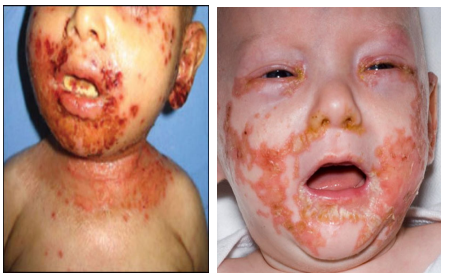
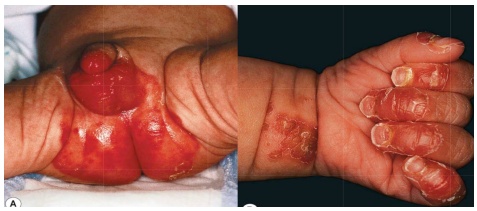
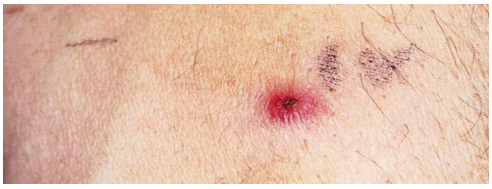
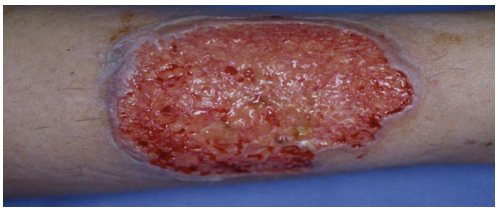
D. Addison's disease "Adrenocortical hypofunction"

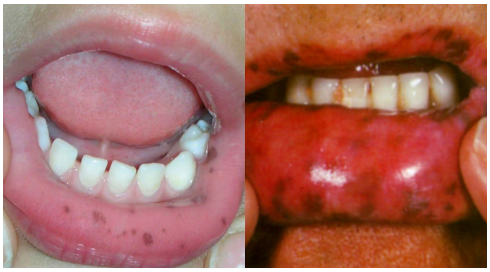
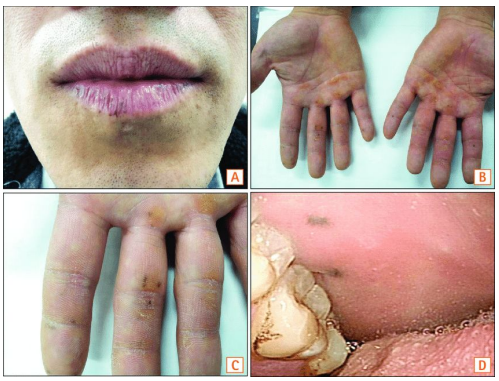
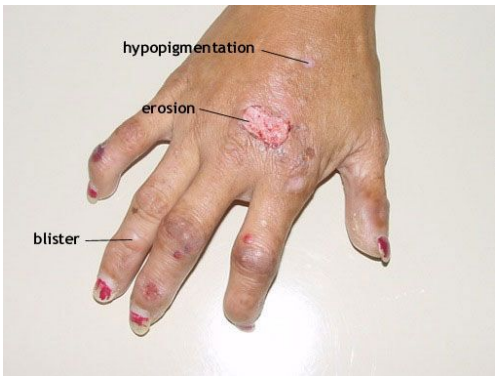
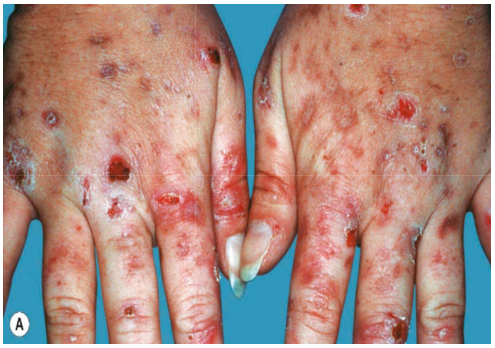
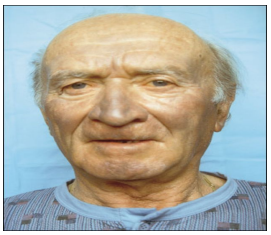
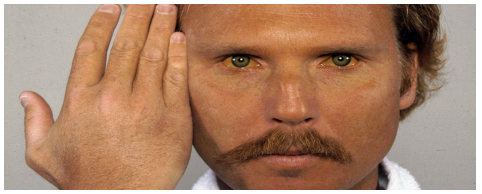
➔ Insufficient Glucocorticoid Activity.
➔ Hyperpigmentation of the skin and mucous membranes due to high levels of circulating ACTH that binds to Melanocortin-1 receptor on the surface of the dermal melanocytes.
➔ Hyperpigmentation at Sun exposed skin, sites of trauma, axillae, palmar creases, old scars ,nevi and mucous membranes.
➔ Loss of ambisexual hair in post-pubertal women.
➔ Fibrosis and calcification of cartilage including the ear (rare).

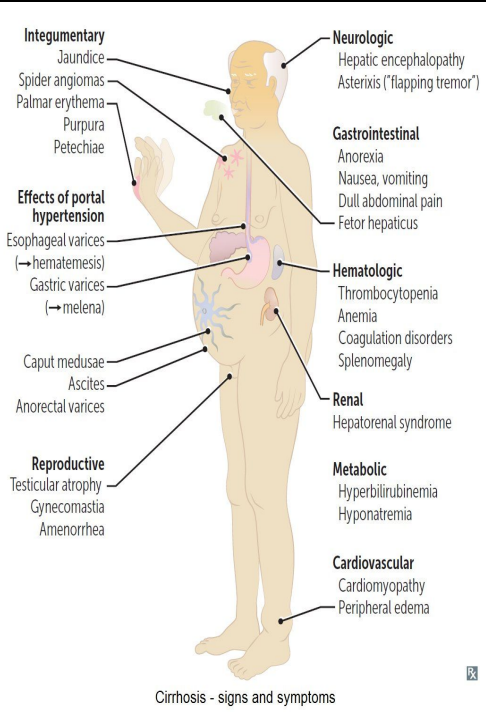




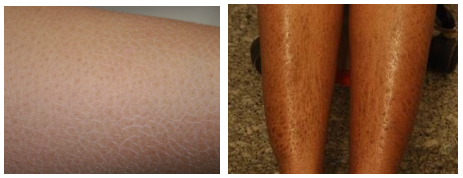
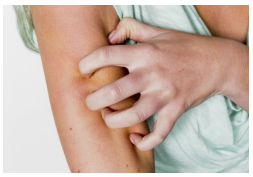
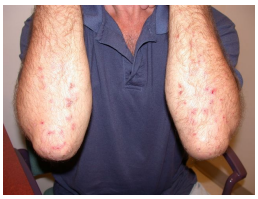
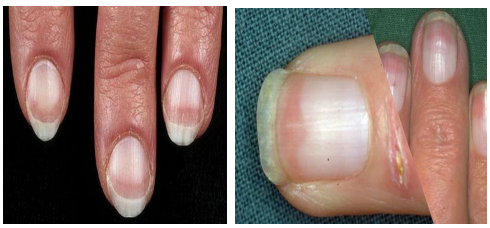
➢ Cutaneous manifestations of Gastrointestinal diseases:

Gastrointestinal diseases:		
Dermatitis herpetiformis	➔ An autoimmune blistering disorder that is often associated with a **gluten- sensitive enteropathy.** ➔ **Small, severely pruritic,clustered vesicular papules or plaques** that are **symmetrically** distributed over the extensor surfaces (elbows, knees, buttocks and shoulders). ➔ Worsening of the disease with dietary intake of Gluten. ➔ Considered A cutaneous manifestation of **celiac Disease.** ➔ Direct Immunofluorescence (DIF) of perilesional skin show **granular IgA deposits in the dermal papillae.** ➔ Tx: Dapsone,Gluten-free diet.	 
Acrodermatitis enteropathica	➔ A rare autosomal recessive disorder that impairs **dietary Zinc absorption** in the GI tract. ➔ Usually starts manifesting as the infant is weaned from breast milk. ➔ Characterized by periorificial, acral dermatitis, alopecia and diarrhea, inflammatory rash, and hair loss. ➔ **Scaly, erythematous patches and plaques similar to atopic dermatitis but progress to vesicles, crusts, erosions and pustules** on the acral, perioral and perianal areas. ➔ Tx: Lifelong dietary Zinc supplementation.	 
Pyoderma gangrenosum	➔ Painful ulcerative lesions with a well-defined undermined, violaceous border. ➔ Starts as a small red papule or pustule,that subsequently expands to form a large non-infectious ulcer. ➔ **Positive pathergy test.** ➔ Mostly associated with ulcerative colitis, Crohn's disease, Rheumatoid arthritis and leukemia. ➔ Tx: topical/intralesional steroids, systemic immunotherapy,biologics. ➔ Surgery is contraindicated.	 

Peutz Jeghers syndrome	➔ Autosomal dominant due to mutations in the STK11 gene. ➔ **Skin**: **Melanotic (brown) macules on mucosal surfaces** and less often on acral or perioral skin that first appear very early in life. ➔ Mucocutaneous hyperpigmentation together with GI polyposis. ➔ The skin findings first appear in infancy or early childhood and involve brown macules on the lips and buccal mucosa. ➔ **GI**: Hamartomatous polyps throughout the GI tract, most commonly in the jejunum. Bleeding may occur. ➔ 2-3% of patients develop GI carcinoma during their lifetimes. ➔ Increased incidence of breast, ovarian and GI cancers.	 
Porphyria cutanea tarda (PCT)/Dracula's or The Vampire Disease	➔ Porphyrias are inherited metabolic disorders resulting from a **deficiency of an enzyme in the heme production pathway.** ➔ PCT is the most common porphyria occurring in adults. ➔ Deficiency in ''**Uroporphyrinogen decarboxylase**'' ➔ Photosensitivity, skin fragility of sun-exposed skin after mechanical trauma, leading to erosions and bullae on the hands mainly. ➔ Healing of crusted erosions and bullae leaves milia, hyperpigmentation on the hands and other sun-exposed areas and atrophic scars. ➔ Facial Hypertrichosis, blisters, scarring with milia formation. ➔ Frequently associated with **Hepatitis C infection.** ➔ Tx: Phlebotomy, hydroxychloroquine, sun avoidance. ➔ Treatment by removal of possible triggers, including iron supplementation,alcohol, and estrogens.	 
Hemochromatosis	➔ Autosomal recessive disorder characterized by the **abnormal accumulation of iron in several organs leading to organ toxicity.** ➔ Cutaneous pigmentation is one of the earliest signs of the disease, most pronounced on sun-exposed areas (face). ➔ Appears as metallic gray or bronze-brown color that is generally diffuse. ➔ **Other findings:** Skin atrophy, ichthyosis-like changes, koilonychia and partial hair loss (most often in the pubic region). ➔ Tx: Phlebotomy and chelating agents.	 

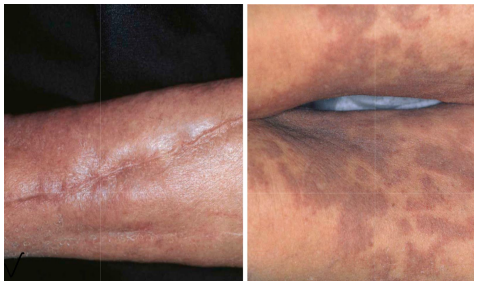
Liver cirrhosis	**Clinical features: Some of the associated abnormalities are the following:** ➔ Jaundice ➔ Pruritus: This is related to obstructive jaundice and may precede it. ➔ Spider angioma/naevi: these are often multiple in chronic liver disease. ➔ Palmar erythema ➔ Purpura/Petechiae ➔ Caput medusae ➔ Loss of body hair. ➔ Pigmentation with bile pigments and sometimes melanin. ➔ White nails: these associate with hypoalbuminemia. ➔ Porphyria cutanea tarda. ➔ Xanthomas: in primary biliary cirrhosis. ➔ Hair loss ➔ Generalized asteatotic eczema: it may occur in alcoholics with cirrhosis who have become zinc deficient.	 Cirrhosis - signs and symptoms

➢ Cutaneous manifestations of Renal diseases:

Manifestations associated with uremia:		
Xerosis/Dry skin	➔ 50-90% of dialysis patients. ➔ Can improve with routine use of emollients. ➔ Some patients may develop acquired ichthyosis. ➔ The exact cause of xerosis in ESRD remains unknown.	
Pruritus/Itchy skin	➔ Affects 15-49% of patients with chronic renal failure and 50-90% of the dialysis population. ➔ **Uremia is The most common metabolic cause of pruritus.** ➔ *Manifestations of pruritus include:* Excoriations, prurigo nodularis, lichen simplex chronicus. ➔ Resolved after transplantation. ➔ Tx: Antihistamines, emollients, phototherapy, thalidomide, gabapentin.	 
Half-and-Half nails	➔ 40% of patients on dialysis. ➔ NOT pathognomonic for renal failure. ➔ Disappears several months after transplantation. ➔ Dark (Reddish-brown) distal band and a white proximal band. ➔ More common on fingernails but could be seen on the toenails.	

Nephrogenic Systemic Fibrosis:

- ➔ Fibrosis of the skin and internal organs.
- ➔ Caused by exposure to gadolinium-based contrast agents used in imaging in patients who have **renal insufficiency on dialysis.**
- ➔ Large areas of thick, woody, indurated skin with fibrotic nodules and plaques on the extremities and trunk, similar to scleroderma.
- ➔ **Tx:** Extracorporeal photochemotherapy, immunosuppressive therapy, phototherapy, IVIG, topical steroids, retinoids, and photopheresis.



➢ Cutaneous manifestations of Hyperlipidemia:

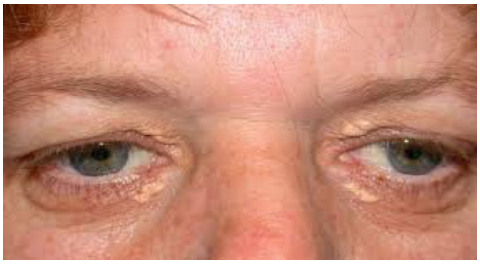
Hyperlipidemia:

Types of Xanthomas:

1. **Eruptive**: Small papules appear in crops over buttocks & extensors.
2. **Tendinous**: Nodules over tendons e.g. extensor tendons of hands & feet and Achilles tendon.
3. **Palmar crease** xanthoma: on palms.
4. **Tuberous:** Papules & nodules over knees and elbows.
5. **Xanthelasma:** Bilateral symmetrical over both eyelids.

Xanthelasma Palpebrarum

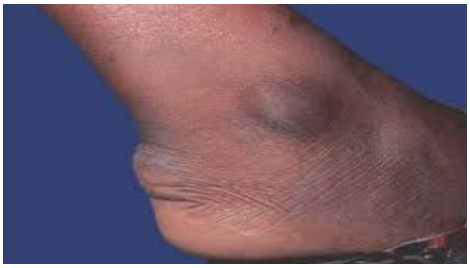
- ➔ **Most common cutaneous xanthoma.**
- ➔ Occurs mostly near the inner canthus (upper > Lower eyelid)
- ➔ Asymptomatic, bilateral.
- ➔ Can be associated with any type of primary hyperlipoproteinemia but can also occur without hyperlipidemia (50%).
- ➔ **Tx:** Surgical excision, laser, cryotherapy.
- ➔ Often treated with topical trichloroacetic acid, electrodesiccation, laser therapy, and surgical excision.



Tendinous/Tuberous Xanthomas

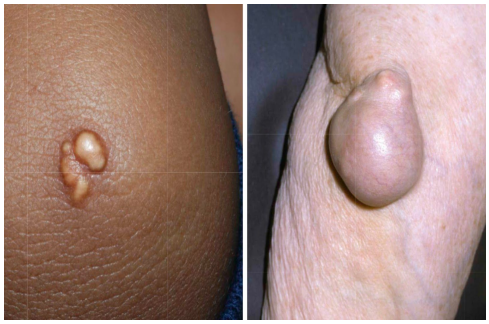
Tendinous xanthoma:

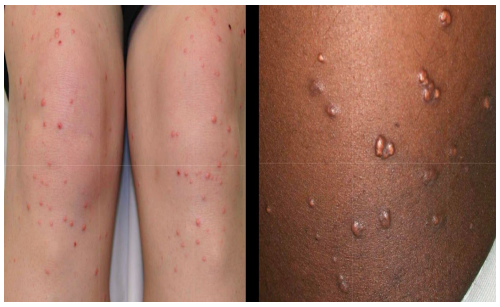
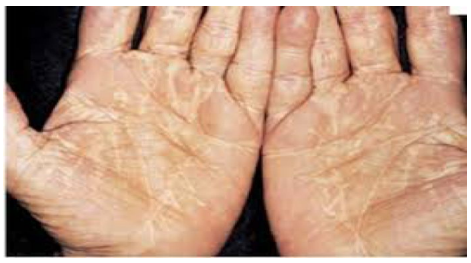
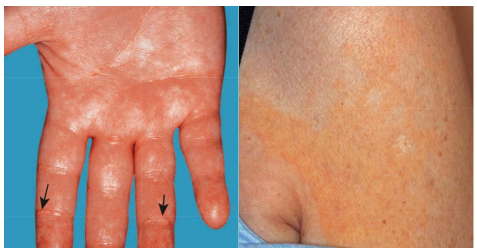
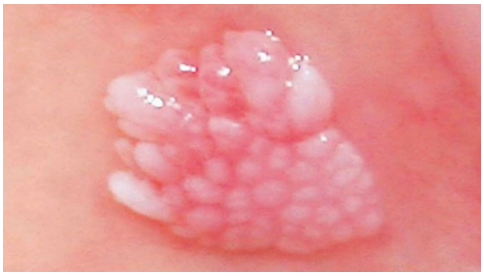
- ➔ Commonly seen on the achilles tendon, followed by the hand/feet,elbows/knees.
- ➔ The least responsive to treatment.
- ➔ Most seen in patients with familial hypercholesterolemia.



Tuberous Xanthoma:

- ➔ Firm,non-tender,cutaneous and subcutaneous yellowish nodules on the extensor Surfaces.
- ➔ Mostly associated with familial dyslipoproteinemia.
- ➔ May resolve after months of treatment with lipid lowering agents.



Eruptive Xanthomas	➔ Painless, yellowish papules on an erythematous base, that present as grouped lesions on the extremities (knees), trunk, elbows and buttocks. ➔ Usually associated with hypertriglyceridemia. ➔ Could be seen in poorly controlled diabetes and acute pancreatitis. ➔ Usually resolves in a few weeks after therapy.	
Planar Xanthomas	➔ Yellowish-orange papules, patches or plaques. ➔ Plane xanthomas of the palmar creases (Xanthoma striatum palmare) are almost diagnostic of dysbetalipoproteinemia. ➔ Plane xanthomas of cholestasis may occur as as complication of liver disease (plaques on the hands and feet). ➔ Plane xanthomas can occur in a normolipemic patient and could signal the presence of an underlying monoclonal gammopathy.	 
Verruciform Xanthomas	➔ Asymptomatic solitary plaques averaging 1 to 2 cm in diameter. ➔ Occur primarily in the mouth but sometimes in anogenital sites. ➔ Usually no associated hyperlipidemia. ➔ Lesions persist for years.	

➢ Extra from males' team:

Causes of generalized pruritus without skin lesions:

- ➢ **Endocrine**: DM, hypo & hyperthyroidism.
- ➢ **Haematological**: polycythemia rubra vera, iron def anemia Malignancy; e.g. Lymphoma.
- ➢ **Hepatic**: primary biliary cirrhosis
- ➢ **Renal**: CRF, The commonest manifestation of CRF is pruritus.
- ➢ **Neurological**: e.g. Tabes dorialis.
- ➢ **Others**: Psychogenic, Drugs, Idiopathic.

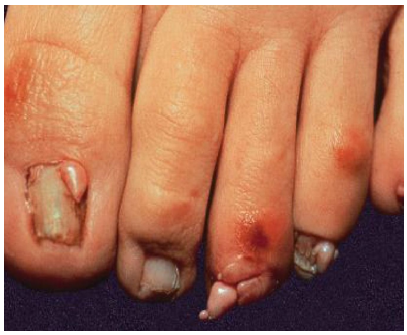
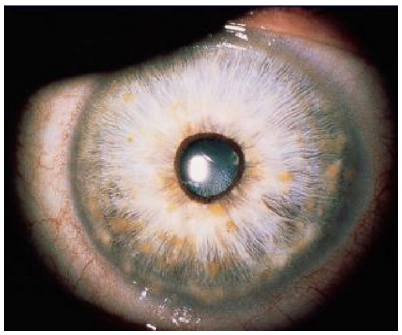
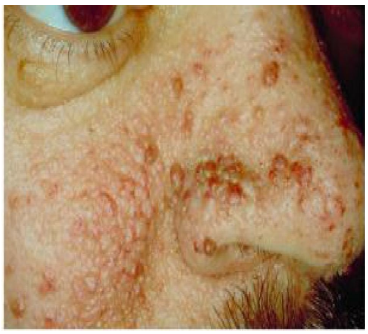
Neurocutaneous Disorders:

- ❑ Autosomal dominant
- ❑ Café-au-lait macules (light brown).
- ❑ Neurofibromas (soft pink or skin- colored papules and nodules)
- ❑ Axillary freckling(Crowe sign), the presence of the macules on the axillae.
- ❑ Optic glioma.
- ❑ Lisch nodules (iris hamartoma, seen by slit-lamp examination).
- ❑ Associated with Neurological complications e.g. tumors, seizures and mental retardation.

★ Tuberous Sclerosis (Epiloia): Epi = Epilepsy/Loi = Low intelligence /A= adenoma sebaceum

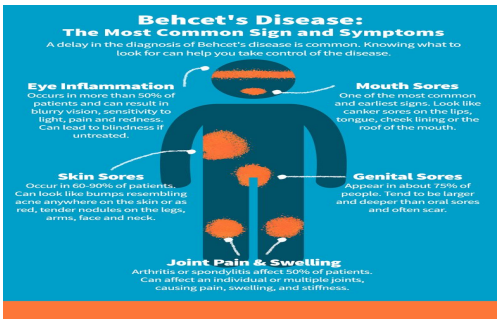
Skin Features:

- **Adenoma sebaceum (angiofibroma):** red papules around the nose and on chin.
- **Ash-leaf hypopigmentation:** oval area of hypopigmentation ***This is the earliest sign of TS.***
- **Periungual fibroma:** multiple papules & nodules around the nail.
- **Shagreen patch:** skin colored plaque on the trunk with "orange-peel" Surface.

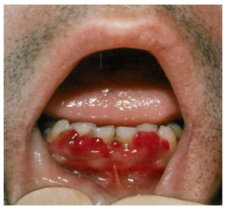
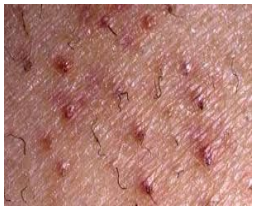
Behcet's Syndrome:

- ❑ Oral ulcer (the most common).
- ❑ Genital ulcers (mainly scrotal).
- ❑ Iritis and arthropathy.
- ❑ May have CNS involvement.



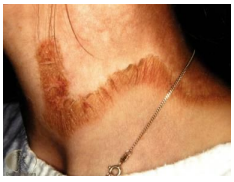
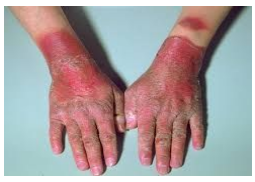
Scurvy:

- ❑ Vitamin C deficiency, Bleeding gums.
- ❑ Can cause teeth loss (permanent complication)
- ❑ Easy bruising.
- ❑ Diagnosis : Low ascorbic acid (Vit-C) level in Leukocyte

Pellagra: Nicotinic acid deficiency 4 "D"s:

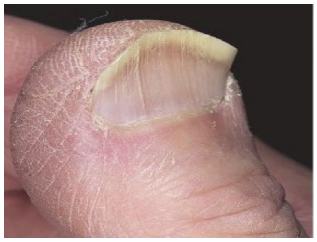
- ❑ Dermatitis (Photodermatitis).
- ❑ Death (if not treated).
- ❑ Diarrhea.
- ❑ Dementia.

Nails:

Koilonychia:

- ❖ Spoon- shaped appearance Causes:
- ❖ Iron deficiency anemia
- ❖ Thyroid disease
- ❖ Physiological; early childhood
- ❖ Dermatosis: Lichen planus, Alopecia Areata and others.

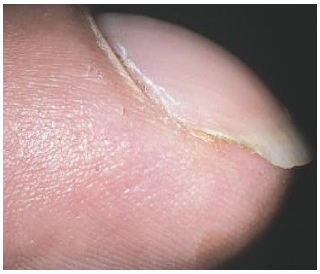


Clubbing:

Exaggeration of the normal nail curve associated with loss of the normal angle between nail and posterior nail fold.

Causes:

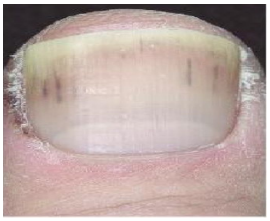
- Thoracic: Lung abscess, Lung CA.
- CVS: Congenital cyanotic heart disease.
- GIT:GI carcinoma, Inflammatory bowel disease Endocrine: Thyroid disease.
- Idiopathic.

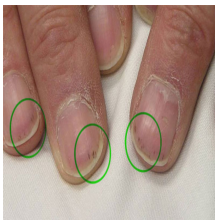


Splinter Haemorrhages:

Causes:

- Bacterial endocarditis.
- Septic emboli.
- CTD.
- Trauma.
- Idiopathic.





MCQs:

Q1: Pruritus:

A. Could indicate thyroid anomaly
B. Pure cutaneous
C. Always treated with topical steroids
D. Not due to underlying disease

Ans: A

Q2: 42 years female has restricted ability to open her mouth and down tight skin over her hands. What is the most common systemic manifestation of Scleroderma?

A. Renal.
B. Cardiovascular.
C. Pulmonary.
D. Gastrointestinal.

Ans: D

Q3: Acrodermatitis enteropathica is:

A. Autoimmune disease
B. Autosomal recessive
C. Iron deficiency
D. Copper deficiency

Ans:B

Q4: What is the appropriate way to handle direct Immunofluorescence specimen:

A. Take biopsy from the bluster
B. Take biopsy from perilesional skin
C. Put the biopsy in formalin
D. Formalin has no role in IF biopsy

Ans: B

Q5: Dermatitis herpetiformis:

A. Common bullous disease
B. Only Occurs in elderly
C. Present as multiple non-pruritic vesicles
D. Dapsone is very effective treatment

Ans: D

Q5: Which of the following is the most useful test to evaluate vesiculobullous lesions:

A. Routine histology
B. Direct immunofluorescence
C. Culture
D. Electron microscopy

Ans: B

Q6: A patient with ulcer and crohn's diseases, which cutaneous manifestation can present:

Ans: pyoderma gangrenosum

Q7:Half and half nails comes in patient complaining of:

A. ESRD
B. Vasculitis
C. Hepatic necrosis

Ans:C and A

All can cause A more correct but C also not false

Q8: Cutaneous manifestation of hypothyroidism is:

A. Pretibial myxedema
B. Tendinous xanthomas
C. Skin tags
D. Myxedematous face

Ans:D

Q9: Acanthosis nigricans is common in: Obese people

Q10: 68-year-old male with poorly controlled DM. Which of the following xanthoma you will most likely see in him:

A. Eruptive xanthoma
B. Tendinous xanthoma
C. Tuberous xanthoma
D. Xanthelasma

Ans: A

Q11: Which of the following skin rashes is associated with diabetes mellitus:

A. Acanthosis nigricans
B. Palpable purpura
C. Pretibial myxedema
D. Striae

Ans: A

Q12: 8 months old infant presented with diarrhea, hair loss, and scaly erythematous patches and crusted erosions on perioral and perianal area. How you treat this infant:

A. Zinc
B. Corticosteroid
C. Antibiotics
D. Emollient

Ans: A

Q13: Which of the following is contraindicated in patients with Pyoderma gangrenosum:

A. Cyclosporine
B. Surgical debridement
C. Systemic steroid
D. Topical steroid

Ans: B

Q14: Carotenaemia with yellowish hue to the skin is seen in:

A. Chronic renal failure
B. Diabetes mellitus
C. Hyperthyroidism
D. Hypothyroidism

Ans: D

Q15: A 30-year-old insulin dependent diabetic female presented with a yellowish-brown atrophic plaque on her shins. Which of the following is the most likely diagnosis:

A. Erythema nodosum
B. Pretibial myxedema
C. Necrobiosis lipoidica
D. Granuloma annulare

Ans: C

Q16: 68 year old male with poorly controlled diabetes Which one of the following xanthoma you will most likely see in this patient:

A. Eruptive xanthoma
B. Tendinous xanthoma
C. Tuberous xanthoma
D. Xanthelasma

Ans: A

Q17: What is the most common metabolic disease causes pruritis:

A. Uremia
B. Hyperthyroidism
C. Hypothyroidism

Ans: A

Q18: A 50–year-old female presented with symmetrical bilateral pretibial non-pitting oedema associated with skin colored waxy papules. Clinical features are associated with which one of the following diseases?

A. Hypothyroidism
B. Thyrotoxicosis
C. Cushing's disease
D. Diabetes mellitus

Ans: B

Q19: A 25-year-old male known to have tuberculosis of the adrenal glands presented with increase pigmentation of the flexures and mucus membrane. Which of the following is the pathogenesis of this hyperpigmentation?

A. Increase melanin production
B. Increase ACTH hormone level
C. Post-inflammatory hyperpigmentation
D. Iron deposition in the dermis

Ans: B

Q20: In a 56 year old male with atrophic hyperpigmented papules and plaques on shins, the blood test you will request is:

A. TSH
B. Kidney profile
C. Liver function test
D. Fasting blood sugar

Ans: D

Q21: In a patient with celiac disease, who has small pruritic excoriated papules and vesicles on buttocks and elbows. Direct immunofluorescence will show granular deposits of:

A. IgA
B. IgE
C. IgG
D. IgM

Ans: A