

General Dermatology

Topic Notes: 6

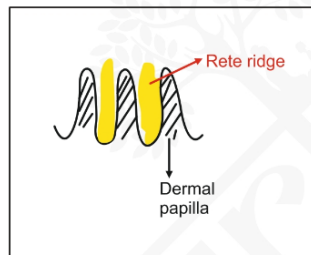
General Dermatology

Active Space

ANATOMY OF SKIN

02:14

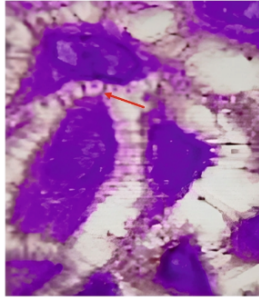
- **Parts of skin are;**
 - 1) Epidermis the top most part
 - 2) Dermoepidermal junction (DEJ)
 - 3) Dermis
- DEJ is an up and down line. It has some upward projections from the dermis called dermal papilla.
In between epidermis is called rete ridge. This arrangement provides grip and dermis and epidermis move together.



- There is no movement of epidermis over dermis.
- **Epidermis has 4 layers:**
 - 1) Stratum corneum(SC)
 - 2) Stratum granulosum(SG)
 - 3) Stratum spinosum(SS)
 - 4) Stratum basale(SB)
- SC has a maximum keratin layer for strength so that trauma is survived or tolerated.
- SG has small granules inside called keratohyalin granules. SG is absent in psoriasis and thickened in Lichen planus.
- SS has spine-like projections called desmosomes.
Its function is to connect keratinocytes. It's almost like sutures as space shouldn't be there. If space was there microbes would've come and cause sepsis.

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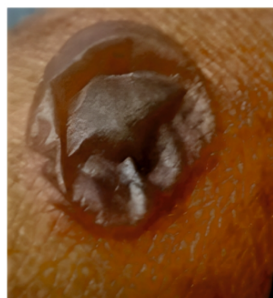


- Desmosomes are also called intercellular junctions.
- 'Acanthos' means spine. Acanthosis is a thick SS and acantholysis when desmosomes are cut.
- Acantholysis is seen in pemphigus, bullous impetigo, staphylococcal scarlet skin syndrome, Darier syndrome, Hailey Hailey syndrome and Herpes.
- Acanthosis seen in Lichen planus, eczema and psoriasis.
- Desmoglein (DSG) protein gives strength to desmosomes.

PEMPHIGUS

11:50

- In pemphigus DSG is picked up by Langerhans cells of epidermis. These cells are immune cells which pick up foreign bodies.
- Pemphigus is an autoimmune disease. Langerhans cell take DSG to lymph node and there B cells make anti DSG antibodies which is an IgG type.
- Antibodies smashes DSG and desmosomes become weak and they break a lot.
- To ensure polygonal keratinocytes formation in epidermis during embryonic period desmosomes are needed.
- When desmosomes are not there, cells become circular, called acantholytic cells or Tzanck cells.
- Due to circular Tzanck cells there will be gas in between and water fills then to form epidermal blisters.

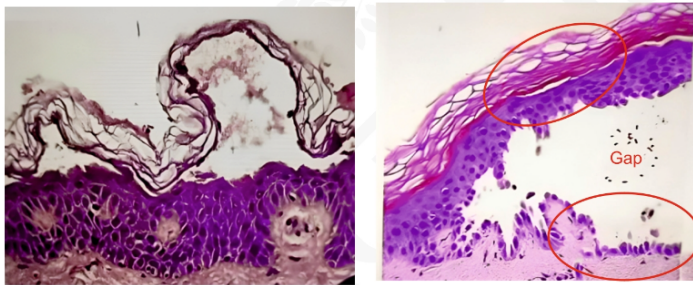


Active Space

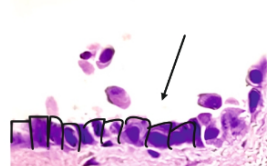
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- All epidermal blisters are flaccid.
- Ruptures by itself and patient usually presents with a raw area.
- Heals with a hyperpigmentation, typical feature of an epidermal disease.
- There will be no scarring because there is no collagen in the epidermis.
- **Pemphigus is of two types:**
 - 1) P. Foliaceous (leaf like scales)
 - 2) P. Vulgaris (most common type)
- All the layers have desmosomes but DSG are different. Maximum DSG 1 is between SC and SG but maximum DSG 3 is between SS and SB.
- In P. Foliaceous anti DSG 1 is produced so acantholytic cells come between SC and SG and is called subcorneal blister.
- If anti DSG 3 is formed suprabasal blister is formed in P. Vulgaris.
- Pemphigus is acquired.
- Thin roof is present in PF and thick roof PV.



- Movement between epidermal layers on tangential finger pressure is called Nikolsky sign. It's a sign of epidermal blister.
- Nikolsky sign is present in pemphigus, staphylococcal scarlet skin syndrome, Hailey Hailey syndrome and epidermal necrolysis.
- Vertical basal cells are well visible in PV. It has an appearance of row of tombstone, typical histopathology of PV.



Vertical basal cell well visible in PV

"Row of tombstone"

Active Space

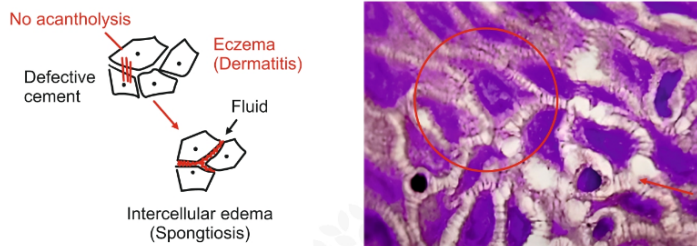
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ECZEMA

29:10

- In between keratinocytes there are two joining elements, one is desmosome and the other is intercellular cement.
- Cement is defective. Water gets in between polygonal cells. This is called spongiosis or intercellular edema.



- This is also called dermatitis.
- Because the amount of fluid is less there will be no blister formation.
- Most people with eczema scratch they create a wound through which the fluid come out like oozing or exudation.
- Itch is a common problem because it's an inflammatory disease.

DARIER DISEASE AND HAILEY HAILEY SYNDROME

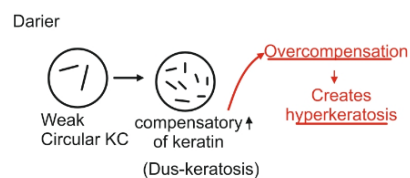
34:43

- Filaggrin connects keratin.
- Calcium is needed for filaggrin and desmosomes to work.
- In Darier and Hailey Hailey there is no Calcium ATPase pump.
- So keratin filaments separate and the keratinocytes are weak from birth. Also the cells will be circular since desmosomes are not working.
- So blistering occurs due to this genetic cause and this acantholysis is since birth.

DARIER DISEASE

36:59

- There will be a compensatory increase in keratin filaments. This is called dyskeratosis.
- Overcompensation creates hyperkeratosis by which the patient will present.
- Blister is hidden by keratosis.



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HAILEY HAILEY DISEASE

38:50

- There is no dyskeratosis so presented with blisters.

EPIDERMOLYSIS BULLOSA

39:20

- Group of genetic diseases presenting at birth.
- Also called trauma induced blisters.
- Epidermis have keratin, junction has laminin and dermis has collagen for strength.
- EB Simplex: There is no keratin in SB. So when a trauma comes upper epidermis survive but basal layer break and a trauma induce basal blister is formed.
- EB Junctional: There is no laminin since birth. So trauma causes blisters in the junction.
- EB Dystrophica: No dermal collagen from birth. Blisters occur at the dermis.

DIRECT IMMUNOFLUORESCENCE TEST

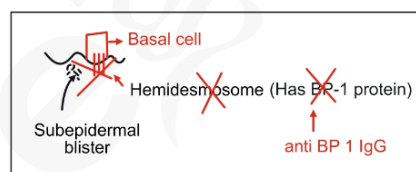
43:10

- DIF picks up antibodies in blisters.
- Pemphigus is called as DIF positive disease.
- Bullous pemphigoid is also positive.
- Darier, Hailey Hailey, EBS, EBJ, EBD are negative disorders.

BULLOUS PEMPHIGOID

44:05

- Basal cells are joined with junction by hemidesmosomes.



- It has a protein BP 1 in it.
- In bullous pemphigoid anti BP 1 IgG is formed.
- Subepidermal blister occur.
- They are very tense and don't rupture so presented as blisters itself.
- It heals with hypopigmentation.
- It heals with scarring as junction and dermis has collagen.

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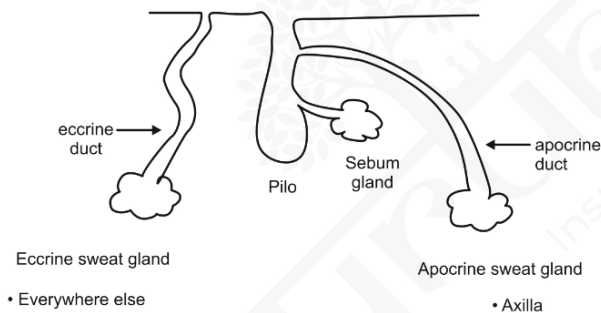
Adnexal Diseases

Active Space

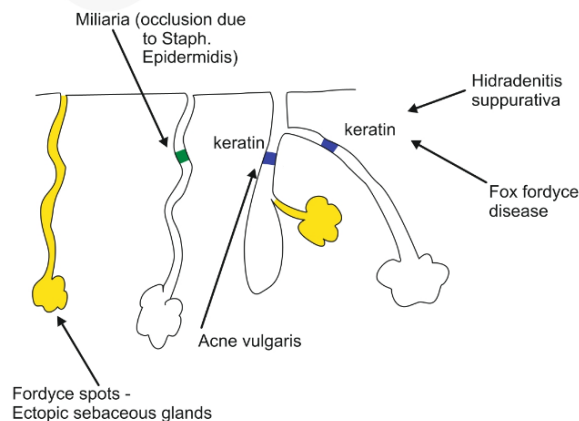
ADNEXA

00:25

- Adnexa means attachments.
- Hair follicles are seen in pilo.
- Some hair follicles have attached sebum glands.
- Sebum glands have propioni bacterium acnes.
- Sebum glands are only present on the seborrheic areas, that is upper body parts above nipple like upper chest, upper back, face, scalp etc.
Here sebum opens into hair follicles.
- Apocrine sweat glands are mainly present in the axilla which open to hair follicles through the apocrine duct.
- Eccrine glands open directly to the outside. They are present everywhere in the body.



- When there is keratin obstruction of the pilo area it's acne vulgaris.
- When keratin blocks apocrine ducts hidradenitis suppurativa occurs.
- These lesions are called comedone. Comedone on seborrheic areas become acne while axilla becomes hidradenitis.
- When eccrine ducts obstructed it's miliaria and is due to staph. epidermidis.
- When sebum directly opens to the outside, yellow dots are presented called as fordyce spots. Fordyce spots are ectopic sebaceous glands.



Adnexal Diseases

Topic Notes: 6

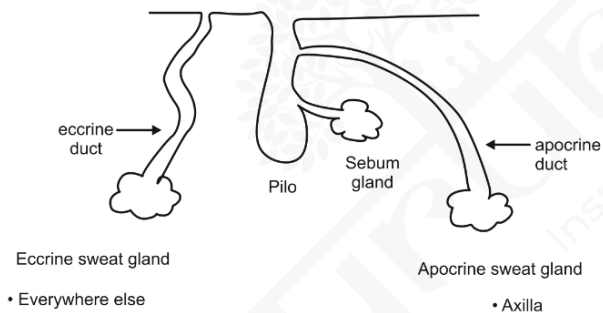
Adnexal Diseases

Active Space

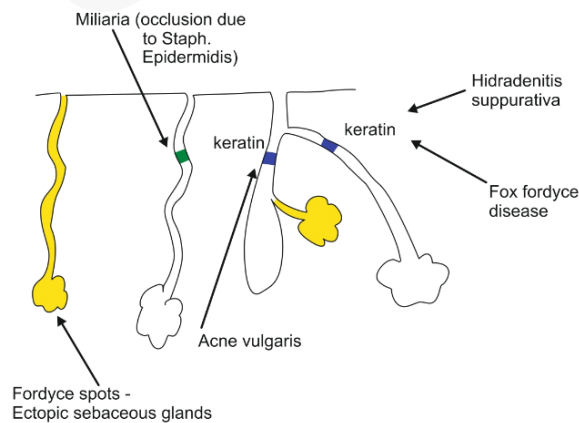
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Adnexal Diseases

Topic Notes: 6

ACNE

04:23

Active Space

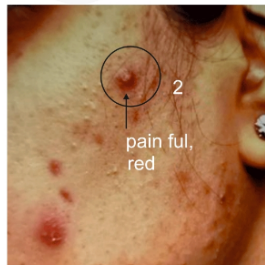
- Two broad types;
 - 1) Acne vulgaris (AV)
 - 2) Hormonal, usually seen in PCOD
- Stage 1 AV;

When comedone is outside it's called blackhead and if inside it's white comedone. Stage 1 has multiple black heads and white heads.



- For treatment we use keratolytics called Retinoids.
- Retinoids are a class of strong keratolytic agents.
- Eg: Adapalene, Tretinoin, Tazarotene.
- These are used at night because they are photosensitive.
- If stage 1 is not treated, sebum can't drain. More propionibacterium acne occurs.
- The gland distended and burst and P.acne released in dermis. This cause inflammation. This is Stage 2 AV.
- Stage 2 AV;

These are inflammatory acne usually seen as papules. In papular stage there will be pain and few comedones will be visible too.
- For treatment continue topical Retinoids, also include topical antibiotics.
- Usually used is clindamycin. Others are clarithromycin, nadifloxacin etc.



- For those who developed resistance topical benzoyl peroxide is used.

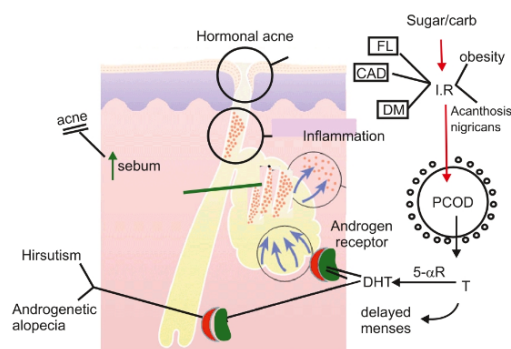
Adnexal Diseases

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- Stage 3 AV;**
 If stage 2 is not treated, pustular severe disease occurs.
 Oral antibiotics are given, like Doxycycline, Azithromycin, Minocycline, Lyme cycline.
 Minocycline has blue pigmentation skin and nails.
- Stage 4 AV;**
 Nodular lesions and scarring occurs.
 Need oral retinoids for treatment.
 Classical one is oral isotretinoin. When isotretinoin used there will decrease sebum production and dry skin occurs.
 Classical dryness is on the lip, even can crack.
 Isotretinoin also reduces keratin so less comedones.
 Works at every stage of acne.
 Problems of oral retinoids are increase triglycerides, teratogenic so can use in pregnancy. Contraception should be continued for 1 month after drug removal.



- Hormonal acne is believed to be food induced diets.



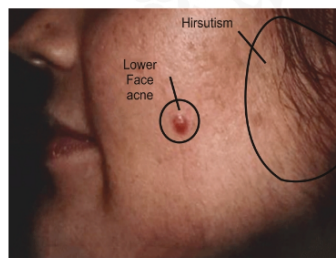
- Due to intake of lot of sugar and carbs, refined sugars insulin resistance develops.
- This leads to obesity. It also leads to acanthosis nigricans.
- Black areas are seen in neck and axilla, skin tags are there.

Active Space

← Adnexal Diseases

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- Insulin resistance also give fatty liver and CAD. Some DM also.
- PCOD is also occurred due to that. Small cystic change occur in the ovary picked up by USG.
- This makes a lot of testosterone which is converted to DHT by 5 α R.
- There is androgen receptor in the sebum glands. These are also present in hair follicles.
- DHT stimulate sebum formation by binding to androgen receptor. This cause increased sebum production, hair stimulation causing hirsutism and in scalp androgenetic balding.
- Increased sebum will ultimately give acne.
- Due to production of testosterone there will be delayed menses. She might be infertile and will have trouble in conception.
- PCOD is likely to have lower face acne.



- Treatment of PCOD:
 - 1) Diet change.
 - 2) Metformin for treating insulin resistance.
 - 3) OCP and Spironolactone to block androgen receptors.
 - 4) Laser hair reduction for hirsutism.

Active Space

Adnexal Diseases

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HIDRADENITIS SUPPURATIVA

21:30

Active Space

- Apocrine sweat is blocked. Sweat gland burst and give rise to papule, pustule or nodule in the apocrine area
- Staph aureus inside it can create an abscess so called as suppurativa.
- Comedone can also extend to hair follicles, leads to sebum gland block and burst leads to sebum coming out.



← Adnexal Diseases

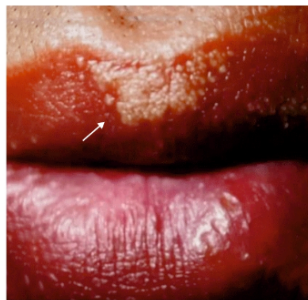
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FORDYCE SPOTS

24:12

Active Space

- Some people have lots of sebum glands in lips, ectopic sebum glands.
- Asymptomatic.
- Seen in upper lips more.



MILIARIA

26:07

- Eccrine duct obstruction.
- If block is at the epidermal surface, it's M.Crystallina and it's a bachelor block by staph epidermidis.
- If block in the middle then M.Rubra and if in the junction then M.Profunda.
- Eccrine glands burst and inflammation occurs with itching.
- It's not a keratin block but a bacterial one so occur during humid summer months. Also called prickly heat due to pricking sensation.

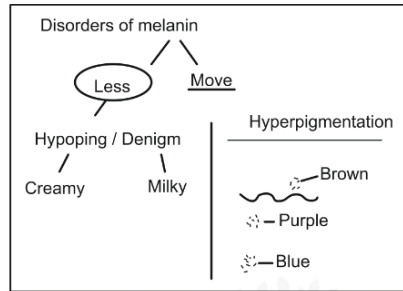
Melanin Disease

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Melanin Disease

Active Space

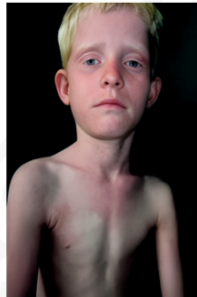
DISORDERS OF MELANIN:



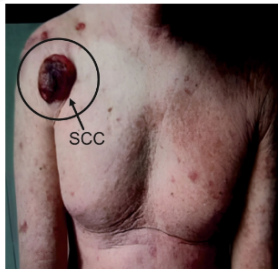
ALBINISM

01:33

- Absent tyrosinase since birth.
- Neurocrest gives you melanocytes, here it's empty since no melanin formation there.
- Depigmentation since birth, in hair, skin, eye.
- More risk of cancer, UV damages nuclei due to absence of melanin.



- Diffuse depigmentation.



- Squamous and basal cell carcinoma are common in these people.

Melanin Disease

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VITILIGO

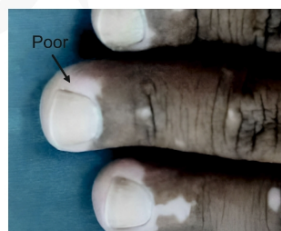
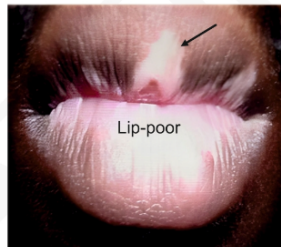
04:00

Active Space

- Vitiligo is an autoimmune acquired disease.
- Melanin formation is there.
- Langerhans pick up melanocytes and present in lymph nodes to form T cells which will attack melanocytes. Thus there will be no melanocyte and melanin.
- Depigmented area, skin will be depigmented but hair may be white (Leukotrichia) if attacked or black, if not attacked.



if black hair, as a rescue hair, shares melanin with skin, black hair is a good prognosis, white hair and lip vitiligo is a poor prognosis.



- Finger tips poor prognosis. If they have lip then called as lip tip vitiligo.

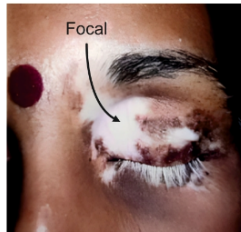
Melanin Disease

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- Types of vitiligo:

1. Focal

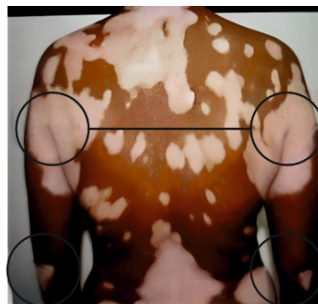


2. Segmental



3. Acral

4. V.vulgaris(bilaterally symmetrical)

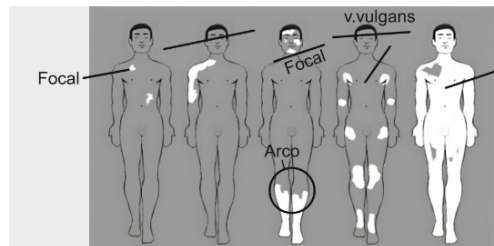


Active Space

Melanin Disease

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5. Universal



- Treatment:
Steroids, Tacrolimus, Phototherapy.
Phototherapy means either UV A or UV B.
First give psoralen and wait for 2 hrs before giving UV A (PUVA)
UV B: Narrow band(311nm), broadband(290-320 nm)
UV B is preferred.



CONTACT LEUKODERMA

11:14

- Slippers, bindi, hair dye (confelti depigmentation)like external contact destroy melanocytes outside.
- Para phenylenediamine in hair dye, Para tertiary butyl phenol in bindi, Mono benzyl ether Hydroquinone in slippers are agents of contact leukoderma.

Active Space

Melanin Disease

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Active Space

DISORDERS OF HYPERPIGMENTATION

14:12

1) Nevus of Ota:

- Melanocyte aggregation in deep dermis is called dermal melanocytic nevus, is a blue area and by birth.
- This blue is along the trigeminal nerve so there is facial blue and blue sclera and is unilateral.



2) Nevus of Ito:

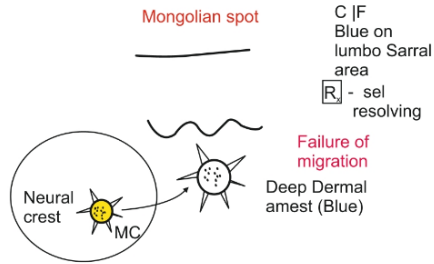
- Aggregation in dermis itself but in shoulder and back.



Melanin Disease

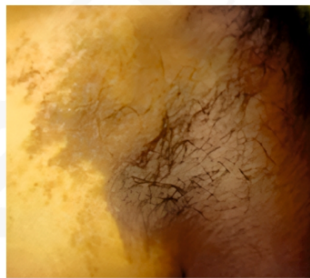
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3) Mongolian spot:



4) Beckers nevus:

Epidermal melanocytic nevus, hence it's brown in shoulder and back. These have more hair and acne due to DHT stimulation.



Active Space

Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

Topic Notes: 8

Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

Active Space

FACIAL LESIONS

00:19

1) Melasma:

- More brown melanin is produced by melanocytes especially in women.
- Stimulations are OCP, Pregnancy (chloasma), sunlight.
- It's a brown pigmented facial rash and is photosensitive.



• Treatment:

1. Use sunscreen.
 2. Reduction of melanin by using tyrosine inhibitors; Hydroquinone, Kojic acid, Azelaic acid. These are topical drugs.
 3. Topical steroids: They thin the skin which will make it fairer.
 4. Topical retinoids: Don't work on melanocytes but on keratinocytes because melanin travels to keratinocytes.
- Kligman regimen: Triad of topical steroids, hydroquinone and retinoids. DOC
 - A variant of melasma is Chik sign; there is melasma like brown in face but with fever and joint pain, seen in chikungunya.

2) SLE

05:14

- Reddish and not brown in the face.
- It's called malar or butterfly rash and is photosensitive.
- Usually seen in females.
- Nasolabial folds are spared and oral ulcers may be present.



Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

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- The redness is a persistent erythema because it's seen all day.
- Many people will present with alopecia which can be scarring or non scarring.



3) ROSACEA

07:14

- Disease of vasodilation of facial vessels. (telangiectasia).
- There will be red rashes in the face.
- This is due to an increase in blood supply and the erythema is intermittent.



- Also called flushing.
- **Stage 2 Rosacea:** it's an inflammatory condition with papules and pustules but without comedones.
- **Stage 3:** also called Rhinophyma; pustular lesions in the nose.
- **Triggers for Rosacea:** Sun, Alcohol, Hot spicy food, emotional upsets, exercise, topical steroids.
- **Treatment:** Give doxycycline, metronidazole, clindamycin. Though they're antibiotics, they work as anti-inflammatory agents.

DERMATOMYOSITIS

11:40

- Same rash around the eye (Heliotrope rash),
- Shoulder, arm, back of shoulder (Shawl sign)

Active Space

Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

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- Knuckles (Gottron's papule)
- There will be proximal muscle inflammation.

ALOPECIA

12:38

1) Androgenetic alopecia:

- DHT induced genetic nonscarring alopecia.
- Hair becomes thin (vellus) and is lost.
- Types:
 1. Male pattern AGA:
 - Frontal and vertex balding because DHT receptors are present only there.
 - Frontal balding cause recession of hairline.



- Treatment: 5% Minoxidil, decrease DHT by Finasteride, Dutasteride. They block 5α Receptors which will block DHT synthesis. Follicular transplant can also be done.
2. Female pattern AGA:
 - Widening of the central parting.
 - No recession of hairline.
 - Treatment: 2% minoxidil. We don't block 5α receptors but allow DHT formation and block androgen receptors by OCP and Spironolactone. Follicular transplant can be done, Platelet rich plasma therapy can also be done.

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Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

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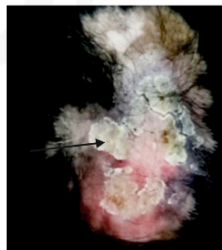


Active Space

2) DISCOID LUPUS ERYTHEMATOSUS

18:11

- Disc like with edges dark and black and is inflammatory causing scars.
- There are scales called carpet tac scales. Seen in sun exposed areas.



3) ALOPECIA AREATA

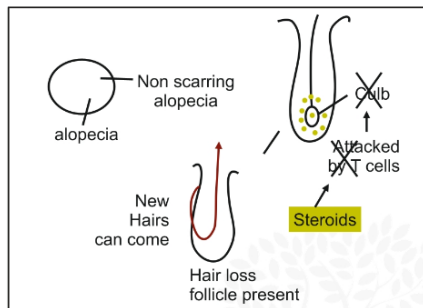
20:17

- Non scarring alopecia.
- No inflammation, so no redness, no scales contrast to DLE.

Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

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- Autoimmune disease where T cells attack the bulb so hair is lost but the follicle remains there.
- Steroids can be given to inhibit T cells and hair can regrow.
- Melanin in the bulb is attacked so white and grey hairs are not lost.



- **Severe variants:**
 1. A.Totalis: full scalp hair gone 24:10
 2. A.Universalis: full body hair is gone 24:16
- Exclamation hairs are seen and are pathognomic for areata.

4) TRICHOTILLOMANIA

25:12

- OCD in females of hair pulling.
- Vertex or dominant hand side balding is seen.
- It's incomplete alopecia.
- Hairs of varying lengths are seen.



- Sparing of margins seen.
- Non scarring and non inflammatory.

Active Space

Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

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MAST CELL DISORDER

27:48

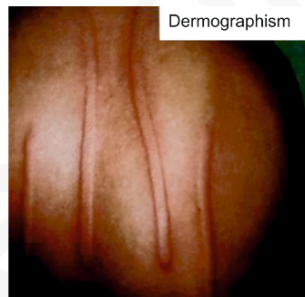
Active Space

1) Urticaria

- Normal mast cells are very deep in the dermis.
- In urticaria Ag attach to Ig E in the mast and it will break to release histamine and leukotriene producing a characteristic lesion called wheal.
- Wheal is edema , redness and itch combination.



- Ag triggering are food, infection, drugs. These are short term and can be cured by removing Ag, so they are called acute urticaria.
- When trigger is longer to remove it's chronic urticaria. Eg: idiopathic, scratch (dermographism), autoimmune etc.



- Physical urticaria: Dermographism, cold urticaria, solar urticaria(sun), aquagenic(water), adrenergic(stress), cholinergic (sweat).

2) MASTOCYTOSIS

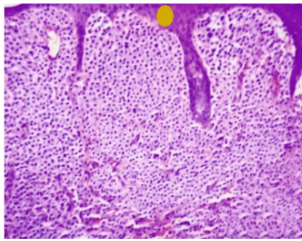
32:02

- No Ig relation.
- There will be many mast cells. They will not be deep now but full the dermis and touch DE junction.

Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp

Topic Notes: 8

- Mast cells touch the melanocyte in the epidermis from below and they release a brown color.
- On rubbing the brown surface a wheal is formed (Darier sign).



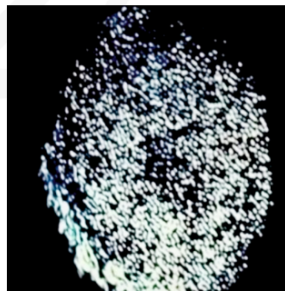
- Also known as U.pigmentosa

WOODS LAMP

35:21



- Lamp with tubes emitting 365 nm light.
- Reflecting color will help to diagnose the disease.
- Tinea capitis- green



- Erythrasma (red color in groin area)- coral red

Active Space

← **Facial Lesions, Alopecia, Mast Cell Disorders, Woods Lamp**

Topic Notes: 8

2) Erythrasma



- Pityriasis versicolor- yellow
- Burrow in scabies(entry point if scabies) - green
- Vitiligo- white
- Ash leaf macule (in tuberous sclerosis) - white

Active Space

esurkurui
Inspired Learning

← Hair & Nail Disorders

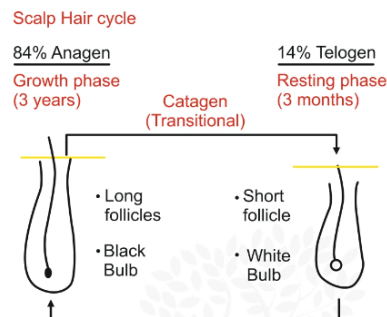
Topic Notes: 3

Hair and Nail Disorders

Active Space

SCALP HAIR CYCLE

00:23



- For telogen to get back to anagen; Small bulb goes down but not the hair, from the bottom of the follicle there will be new anagen forming. This new anagen is a black bulb. Anagen pushes the telogen hair causing telogen loss ie, 100 hairs/day.
- 100 per day is physiological and doesn't cause density loss because 100 new are in their place.
- If >100/day it's called telogen effluvium. Even if one another is lost its abnormal and is called anagen effluvium.
- Anagen effluvium is seen in chemotherapy because the drugs attack fast dividing hair cells like cancer cells.
- Both anagen and telogen effluvium are non scarring ie the hair will come back.

TELOGEN EFFLUVIUM

04:54

- It has two types:
 - 1) Acute :
 - After 3 months of severe fever (typhoid, malaria, dengue, chikungunya) or childbirth.
 - It's because body want to focus on the condition more than hair growth, so all the anagen are converted to telogen.
 - 2) Chronic:
 - In nutritional deficiencies, anemia, hypothyroidism.

← Hair & Nail Disorders

Topic Notes: 3

NAIL DISORDERS

07:44

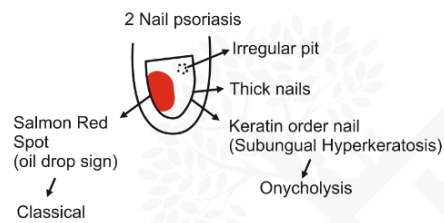
Active Space

1. Nail pitting

- Two types: irregular (deep) and regular (superficial).
- Irregular seen in psoriasis and regular seen in alopecia areata.
- Psoriasis pitting is in haphazard way whereas alopecia areata pitting is in a plus shape.

2. Nail psoriasis:

- Onycholysis: separation of nail from nail bed.



- Subungual Hyperkeratosis
- Onycholysis

3. Nail Lichen planus

- Longitudinal ridging: vertical ridge.
- Tented nail: nail become V shaped.

← Hair & Nail Disorders

Topic Notes: 3

- Thinning of nails: Nail strip will be gone.
- Due to that a strip of skin of nail fold get fused and extend to nail bed called as pterygium of nail.
- 20 nail dystrophy or trachyonychia: all nails are destroyed

Active Space



Leprosy

Active Space

HANSEN'S DISEASE

00:25

- Mycobacterium leprae is stained by ZN and Fite stains.
- Can only pick up leprosy when they are large in number.
- If the immune system is good most organisms get killed: Paucibacillary Hansen, staining negative.
- If the immune system is bad a lot of organisms survive and Multibacillary Hansen occurs and staining will be positive.
- Mycobacterium needs cool areas of the body to grow like skin and superficial nerves. Eg Ulnar nerve, facial nerve.
- Superficial nerves becoming thick and palpable is an excellent sign of Hansen's.
- Skin biopsy is good for diagnosis. Sometimes nerve biopsy is needed in pure neural leprosy. Radial cutaneous and sural nerves are chosen for biopsy and not ulnar or facial nerves as they are motor nerves and cause motor paralysis.

1) m/c Peripheral nerve Ulnar (UL), Post tibial (L)
 2) " deformity = Claw ha
 3) " Cranial nerve Faci
 4) " Hansen in India - "Bharat"
 5) " internal organ involve Testis
 6) " nerve for biopsy- Radial cutaneous > Sur

- It's an inhalation disease. The leprae survive in the cooler areas of dermis.
- The policeman roaming in the dermis which will engulf the leprae called the dermal macrophage.
- In nerve police are schwann cells.
- They take it to lymph node which give T cells(kill leprosy) and B cells(don't kill leprosy).

Ridley Joplin classification:

T	100%	80%	70	50	20%	0%
B	0%	20%	30	50	80%	100%
	↓					
X	Killed	X	X	X	X	X
0	Remain	2	3	5	8	10
↓		↓	↓	↓	↓	↓
N		TT	BT	BB	BL	LL

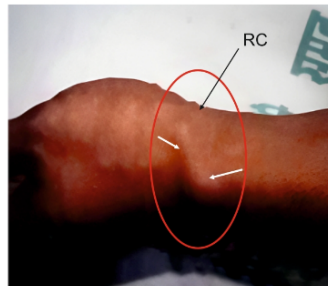
← Leprosy

Topic Notes: 8

TT HANSEN'S

05:47

- Arrangement of cells bacilli in the middle, macrophage around it and final curve of T lymphocytes is called as tuberculoid granuloma formation.
- Granuloma seen in skin and nerves which make them thick.

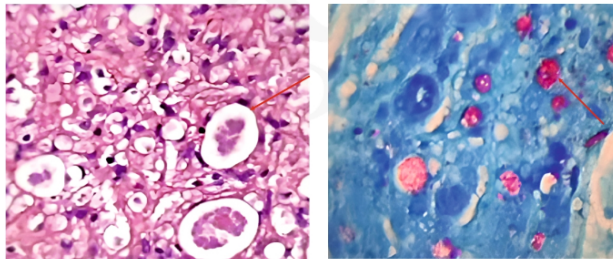


- Biopsy is full of granulomas.

LL HANSEN'S

07:11

- Ab just stay outside the macrophages which engulfed bacilli as they can't kill.
- A macrophage full of granuloma is called foamy macrophage due to its foam like appearance. It's also called lepra cells or virchow cell.
- Strongly Fite stain positive.



- Intact or living bacillus is less antigenic, after MDT killed, the bacilli has more surface area, so it is more antigenic. This create hypersensitivity and inflammation called lepra reaction.

LEPRA REACTIONS

11:20

- Type 1 lepra reaction: T cell hypersensitivity. Inflammation damage the surrounding tissue.
- Nerve become red and inflamed, neuritis sometimes creating a nerve abscess.

Active Space

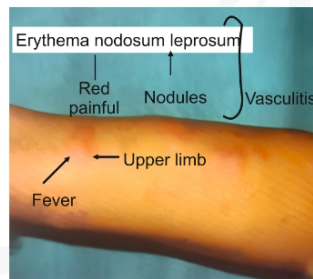
← Leprosy

Topic Notes: 8

- Pain and redness in skin also occur.
- Treatment - Steroids for T cell suppression and incision and drainage for abscess removal.



- It's type 4 hypersensitivity.
- Type 2 lepra reaction is type 2 hypersensitivity.
- It's also called ENL, Erythema Nodosum Leprosum.
- Red nodules in leprosy on the limbs with fever and other systemic manifestations like uveitis, arthritis, glomerulonephritis, orchitis etc.
- It's a vasculitic reaction.



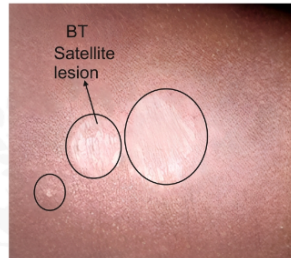
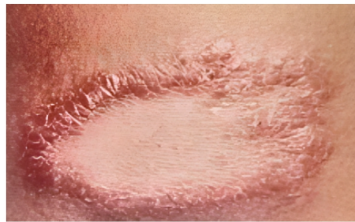
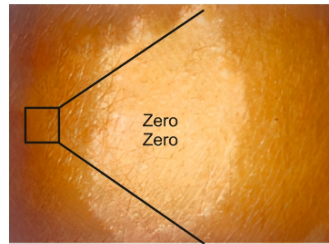
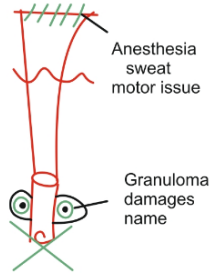
SKIN FEATURES OF HANSEN'S

16:14

- TT: Granuloma compress the nerve and the supplied area of skin gets anesthetised with decreased sweating and motor issues.
- 1 thickened nerve and 1 skin lesion.
- Granuloma is toxic to melanocytes so there will be hypopigmentation in that area.

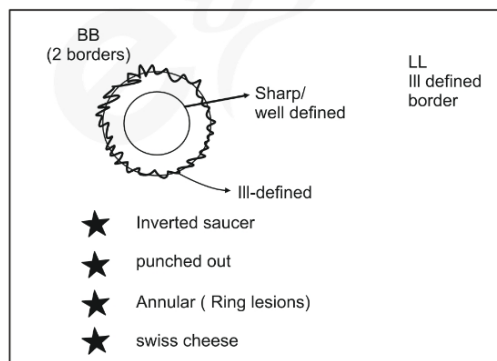
Active Space

Leprosy
Topic Notes: 8



Active Space

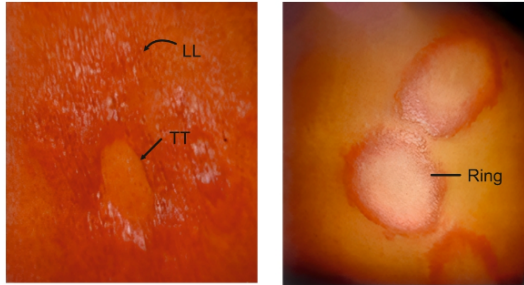
- Well defined borders are indicative of good immunity which limit the spread.
- Bacilli escapes to other sites through defective margins to form satellite lesions.
- BT Hansen's have 3-10 lesions, 2-3 thick nerves.
- More the no. of lesions more crossing of midline, more symmetry implies more lepromatous and less symmetry more towards tuberculoid side.
- As we move from TT to LL symmetry increases and thickened nerves also increase.
- BB has two borders.



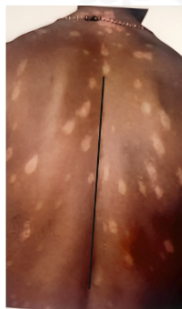
← Leprosy

Topic Notes: 8

- 10-30 lesions.



- Ring lesions are not scaling, scaling may indicate taenia, petria serosia.
- BL



No. of lesions are too many and almost symmetrical

- LL



No granuloma and nerve compression so no hypopigmentation and intact sweating and sensations.

Diffuse lesions. Topick then from community ear lobe infiltration should be checked. Ear has low temperature so the lesion is there.

Active Space

Leprosy

Topic Notes: 8



- LL has invasion damages



The invasion can spread to peripheral nerves ie acral nerves and cause peripheral neuropathy.
Loss sensation in hand and feet also occurs known as glove and stockings anesthesia.

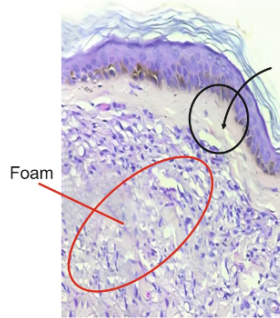
When nodules occur in LL cause leonine facies.



- Grenz zone is the clear area in upper dermis where foam cells are not present.

Active Space

Leprosy
Topic Notes: 8



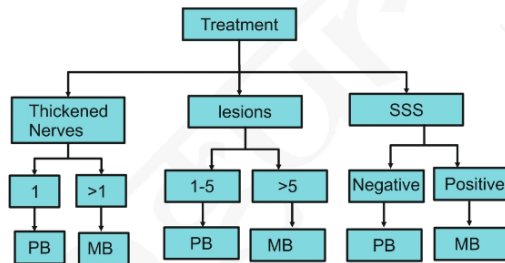
Active Space

- Slit skin smear test:
Make a blade nick on ear and skin lesions.
Take the secretion and put on a slide.
SSS would be negative in a Paucibacillary case (TT, pure neural, indeterminate).
SSS would be positive in a Multibacillary case (BT, BL, BB, LL).

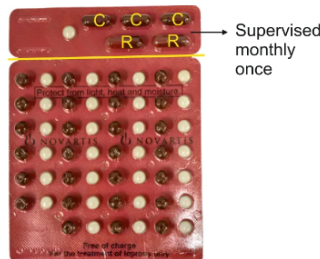
TREATMENT

30:10

- Classified to PB and MB.



- PB gets 6 months and MB gets 12 months therapy.
- Can extend upto 9 and 12 months respectively.
- C- Clofazamine, R- Rifampicin



D - Dapsone.

- Monthly dose of D 100mg, C 300mg, R 600mg.
- Daily dose of C 50mg, D 100mg and it's 27 days unsupervised.

INDETERMINATE HANSEN'S

33:10

- Early stage of Hansen's.
- Hypopigmentation in cheeks without nerve thickening and having normal sensation.
- No scaling. (Dd is P.alba has scaling.)



- Dd in Hansen's: PKDL
Happening after kala azar, common in Bihar and UP.
Kala azar will have fever and blackening.
In PKDL there are hypopigmentation looking like BK and nodules looking like LL.
Fever in past indicates PKDL.



Diagnosis comes from Leishman stain to look for LD bodies.
Treatment is by irak Miltefosine.

Active Space

STD

Active Space

GENITAL ULCERS

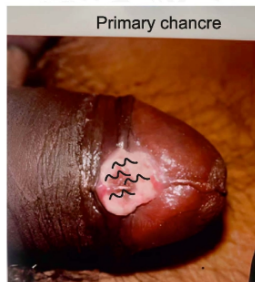
00:35

1. Syphilis

- *Treponema pallidum* is the causative organism. It's a spirochete with a corkscrew rotational movement.

1) Primary syphilis

- Incubation period- 90 days. Enters the penis during this time and creates an ulcer primary chancre or hunterian chancre.
- It's painless, hard and single without bleeding but with a serious discharge.
- Investigation: Smear from the site and demonstrate antigen by dark ground illumination.



- Button like ulcer.



- No bubo formation ie inflamed inguinal lymph nodes.

2) Secondary syphilis

- If primary cancer is not treated, spirochetes enter the bloodstream and antibodies can be noted thus in secondary syphilis.
- Antibodies detected by VDRL.
- VDRL positive for secondary but negative for primary syphilis.

← STD

Topic Notes: 8

- Secondary syphilis have scaly rashes on acral parts which are non itchy.
- Painful on deep pressure, deep dermal tenderness.



- Condyloma Lata formation: flat moist perianal lesions.



- Oral patches are small oral lesions like snail tracks.



- Moth eaten non scarring alopecia also present.

3) Latent syphilis

- If secondary is untreated spirochetes become inactive resulting in latent syphilis.
- Patient becomes clinically normal but VDRL is still positive.
- Two types early and late.

Active Space

4) Tertiary syphilis

- If latent isn't treated treponema enter the deep tissue.
- CNS invasion causing neurosyphilis.
- CVS invasion causing cardiosyphilis.
- Skin invasion causing gummatous lesions.

Treatment

EARLY SYPHILIS (<2 yrs)	Primary Secondary Early latent	Inj. Benzathine Penicillin 2.4 MU im single dose
LATE SYPHILIS (>2 yrs)	Late latent Tertiary	Inj. Benzathine Penicillin 2.4 MU im 3 doses at weekly intervals Neurosyphilis- I.V Aqueous Crystalline Penicillin

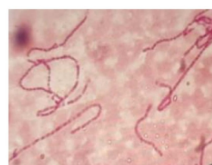
- If penicillin allergy is there Doxycycline is used. 14 days for early and 28 days for late syphilis.
- Test dose should be given before penicillin.

Active Space

2) **CHANCROID**

09:55

- Haemophilus ducreyi is the causative agent.
- Ulcer is opposite to syphilis.
- Multiple soft painful bleeding lesions.
- Auto inoculation: inoculates at the touching part.
- Involves lymph node and unilateral bubo will be there.
- Red inflamed bubo with yellow colored pus sometimes.
- Investigation: Slit and gram stain to get school of fish or railroad track appearance, bacilli in straight line.
- Treatment: Azithromycin 1g stat single dose oral.
Ceftriaxone 250 mg IM stat.

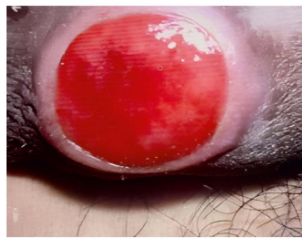


3) DONOVANOSIS/ GRANULOMA INGUINALE/GI

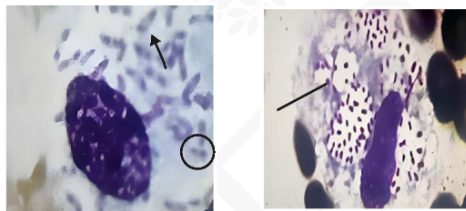
13:10

Active Space

- Granuloma in the inguinal region, not bubo but pseudobubo.
- Causative agent *Klebsiella* or *Calymmatobacterium granulomatis*.
- Vascular ulcer, painless single bleeding.
- Red beefy appearance.



- Smear and giemsa staining, in 40X histiocytes are seen called as Donovan bodies (pand bodies) and in 100X closed safety pin appearance.



- Treatment

Azithromycin (preferred) 1 gm/week or 500 mg daily	} Till ulcer heals
or Doxy 100 mg BD	

4) LYMPHOGRANULOMA VENEREUM

17:06

- *Chlamydia trachomatis* is the causative agent.
- Painless transient lesion: primary genital stage. Not noticed by the patient.
- Noticed when they go to lymph nodes. Bilateral Bubo formation or secondary stage. Presentation is always in the secondary stage.



- Complication: Due to inflammation there will be scar formation and lymph can't go back causing genital lymphedema (elephantiasis). Swollen engorged genitals.



- Treatment: Doxy 100mg BD for 21 days.

5) HERPES GENITALIS

19:22

- HSV 2 causes this.
- Before ulcer is formed, grouped painful vesicles are present which leads to painful ulcer.
- After giving Acyclovir virus goes to sacral ganglia which gets reactivated to get a recurrent herpes.
- Treatment: Acyclovir.



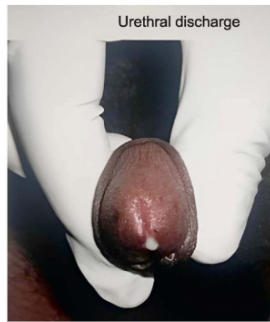
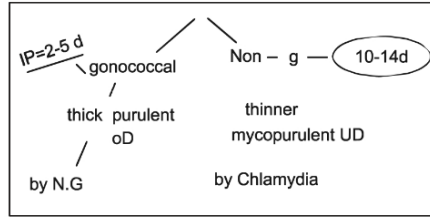
Active Space

URETHRAL DISCHARGE

20:59

Active Space

- Two types:



- **Treatment:**
Cefixime 800 mg stat orally or ceftriaxone 500,mg IM stat for gonococcal
Azithromycin 1g stat or Doxy for 7 days for non-gonococcal
- **Syndromic approach:** To treat all the possibilities because we can't make a diagnosis.
Cefixime and Azithromycin are given. They are put in a gray packet.



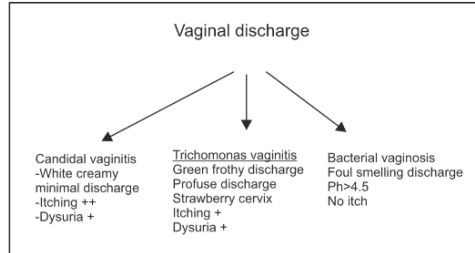
- Gray packet can be used for cervical discharge also because of same organism.
- Speculum is needed for diagnosis of cervical discharge.

VAGINAL DISCHARGE

24:44

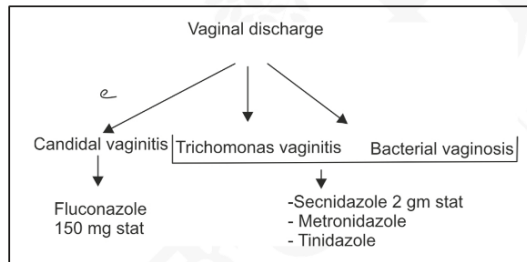
Active Space

- Causes:



- Bacterial vaginosis is caused by *Gardnerella vaginalis*.
Due to *Lactobacillus* normal pH of vagina is less than 4.5 but in bacterial vaginosis due to antiseptic washes pH rises. GV is a commensal of vagina, starts to proliferate when pH increases.

- Treatment: Syndromic approach

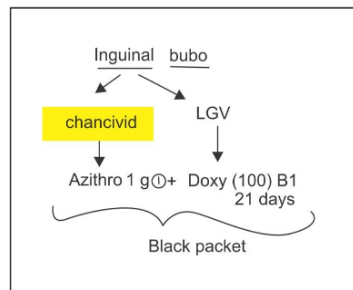


- Green kit: fluconazole and secnidazole

INGUINAL BUBO

27:33

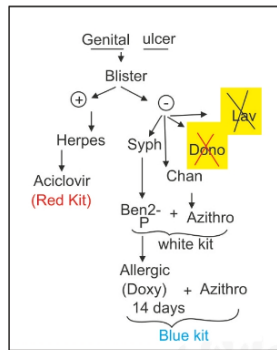
- Should consider chancroid and LGV.
- Black packet is given



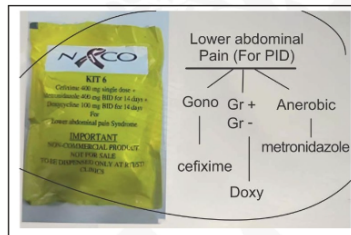
SYNDROMIC APPROACH TO GENITAL ULCERS

28:00

Active Space



- Yellow kit for lower abdominal pain (PID)
For females in pelvic inflammatory conditions.



- No partner treatment is required for:
 1. Herpes: because it reoccurs.
 2. Candida: commensal (opportunistic pathogen)
 3. Bacterial vaginosis: commensal

← Psoriasis & Lichen Planus

Topic Notes: 7

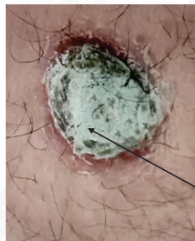
Psoriasis and Lichen Planus

Active Space

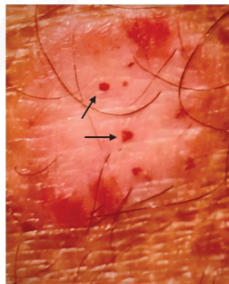
PSORIASIS

00:22

- Autoimmune disease.
- T cell mediated.
- Self Ag is seen in upper epidermis, get picked up by Langerhans cells and taken to lymph nodes where T cells are formed against self Ag and inflammation occurs.
- It's a chronic inflammation so long treatment is needed.
- Extra keratin is found, hyperkeratosis.
- Thick scaly lesions called as silvery scales.
- For a normal person when the cell goes from basal to corneum nucleus is lost but here skin goes very fast ie in 4 days so nucleated stratum corneum is seen called parakeratosis.
- It's due to increased dividing of basal cells.
- When neutrophils come in the SS it's called kogoj spongiform pustule and when it collects in SC it's called munro microabscess.



- If we scrap the corneum (grattage test), pinpoint bleeding is observed (Auspitz sign).

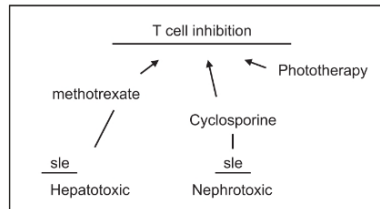


- T cell inhibitor used in treatment are

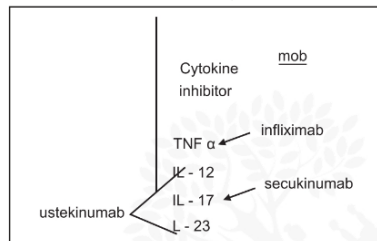
Psoriasis & Lichen Planus

Topic Notes: 7

Active Space



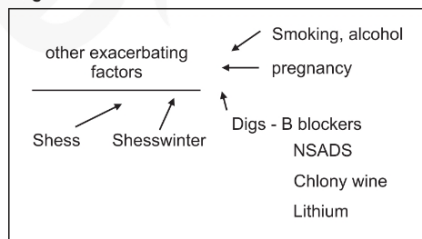
- Biologicals: Cytokine inhibitors, identified by -mab



- Avoid systemic steroids, because when they are stopped suddenly may cause flare or rebound which can be very severe as 90% skin can get involved. Erythrodermic psoriasis, Pustular psoriasis.



- Other exacerbating factors:

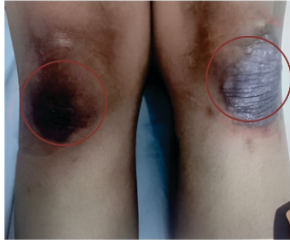


- Types:
 - P.Vulgaris
 - Most common type.

← Psoriasis & Lichen Planus

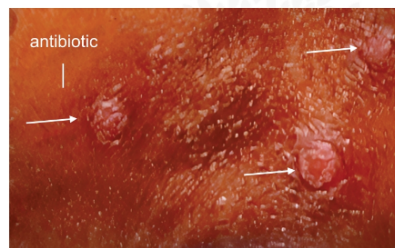
Topic Notes: 7

- Seen in extensors.



2. Guttate psoriasis

- Small raindrop like scaly lesion
- Association with streptococcal pharyngitis.



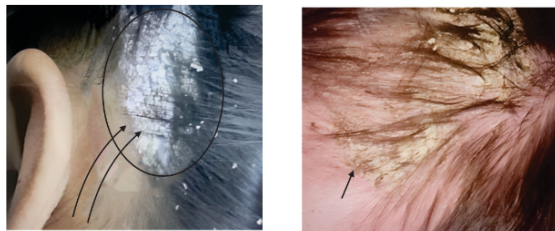
- Antibiotics should be given

3. Erythrodermic psor/ exfoliative dermatitis

- Scales are shed
- Lose a lot of protein which should be got by high protein diet.
- Malabsorption is also needed.
- Cold blooded, because skin function of maintaining temperature is affected.

4. Sebopsoriasis

- Silvery scales on scalp, face and seborrheic areas.
- Dd is seborrheic dermatitis which is a dandruff disease. This is Malassezia proliferation in seborrheic areas and produces yellow greasy scales. On scalp of infant it's known as cradle cap.



Active Space

← Psoriasis & Lichen Planus

Topic Notes: 7

Treatment: antifungals like KZ, Ciclopirox, Zinc pyrithione, selenium sulphide.

- Treatment: cold tar, steroid or salicylic acid shampoo.

5. Flexural psoriasis

- Seen in flexor area, infra mammary area, groin area.
- There will be rubbing so scales are dislodged. So only redness will be there.

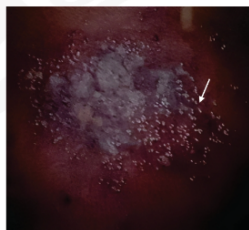


6. Psoriatic arthritis

- Associated with HLA B27
- DIP involved.
- Nail involvement predicts joint involvement. If nails have salmon patch, pitting, subungual hyperkeratosis.

7. Pustular psoriasis

- Lake or sheet of pus ie fusion of pus occurs in the skin surface.

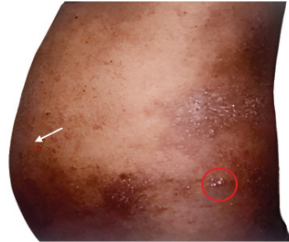


- Also have a fever.
- If a patient is non pregnant it's called von zumbusch type and treatment is oral retinoids. (Acitretin, a teratogen)
- In pregnancy it's called impetigo herpetiformis, systemic steroids are used and slowly reduced. If diabetic oral cyclosporine should be used.

Active Space

← Psoriasis & Lichen Planus

Topic Notes: 7

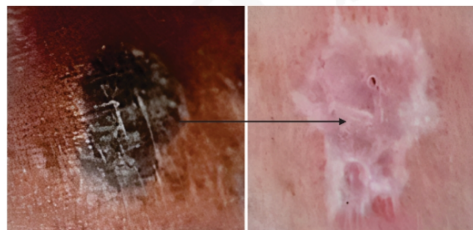
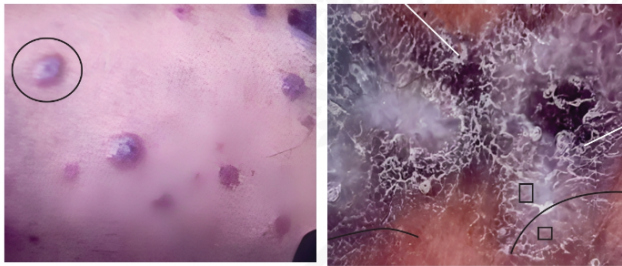


- Complication: Insulin resistance and metabolic Syndrome.

LICHEN PLANUS

23:20

- Purple itchy flat lesion which is non scaly.
- Wickham's striae: white criss cross areas when oil is applied.



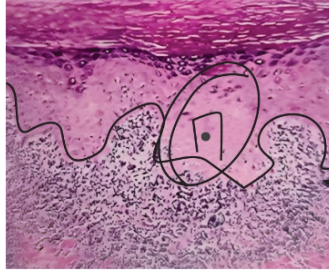
Wickham's striae

- Pathogenesis:
Ag is a basal cell, picked up by Langerhans cells and present in lymph nodes to get T cells. Here it doesn't want to cross DEJ.
So a band of lymphocytes are seen below DEJ
So there is no neutrophil infiltration.

Active Space

Psoriasis & Lichen Planus

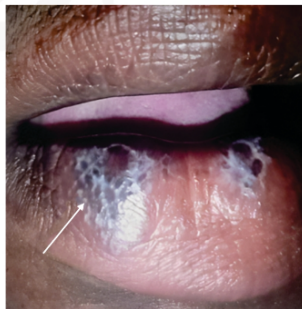
Topic Notes: 7



- Basal cell death occurs. DEJ is also damaged or liquefaction occurs and dead cells fall down to dermis which are called dermal necrotic keratinocytes, also known as civatte, colloid, cytoid bodies.
- Melanocytes also drop to dermis and create a purple color.
- Types of LP:
 1. **Oral LP**
 - Always white criss cross, lazy or reticular pattern.
 - No malignant potential.



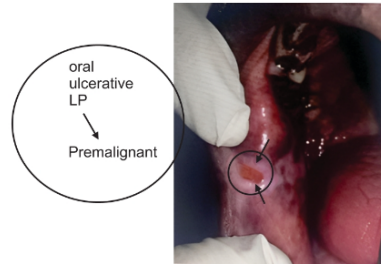
- Some have dental amalgam creating an LP.



Active Space

Psoriasis & Lichen Planus

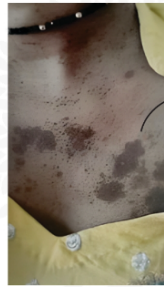
Topic Notes: 7



Active Space

2. LP pigmentosum

- Pigmented patches on sun exposed areas.



3. LP Piliaris/ pseudopelade

- Autoimmune destruction of follicle.
- Inflammation occurs and is a scarring alopecia.



- Footprint in snow appearance due to scar and normal hair.
- No scales but wrinkles can be seen.

4. LP Hypertrophicus

- Thick LP areas mainly on legs.

Fungal Infection

Topic Notes: 5

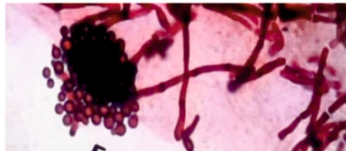
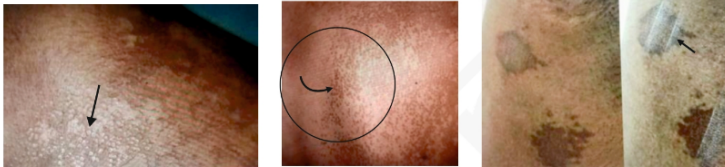
Fungal Infection

Active Space

PITYRIASIS VERSICOLOR

00:37

- Fine, branny, powdery scales seen only on scratching.
- It's either hyper or hypo pigmented.
- Typically around chest and back follicles.
- Yellow in Woods lamp.
- Causative agent is malassezia and seen superficially in s. corneum.
- Investigation is scraping of scales and KOH mounting, we will get spaghetti (linear filamentous) and meatballs appearance or Banana and grapes appearance.

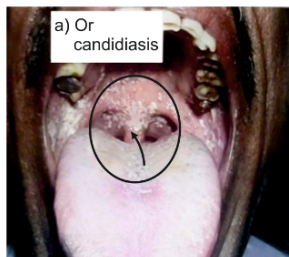
Spaghetti and meat ball⁴

- There will be peri follicular hypopigmentation.
- It's a commensal creating problems during moisture, summer etc.

CANDIDIASIS

03:48

- Opportunistic organisms, during DM, immunosuppression states like steroid intake, HIV, chemotherapy.
- More in people who sweat, in the groin area, infra mammary area and in between toes.
- Types:



White creamy curdy mouth lesions can be scrapped with spatula (pseudo membrane)

1.

Fungal Infection

Topic Notes: 5

2. Candidal balanitis
Red, itchy glans area.
No partner treatment required.

B) Candidal balanit



3. C. Balanoposthitis



Prepuce is also involved, cuts and fissures are seen, can't retract the skin.
People on SGLT inhibitors are more prone.

4. C. Intertrigo
In between skin folds, due to increased sweat.
Eg: infra mammary area, toe webs, groin.
Satellite lesions are seen.
There can be white and red variants.



TINEA (RINGWORM)

09:02

- It's a fungus not a worm.
- Annular lesion which is active on the edge and clear center.
- Redness in the edge is inflammation and itchy and has scales.

Active Space

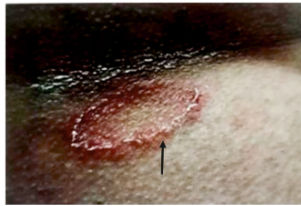
← **Fungal Infection**

Topic Notes: 5

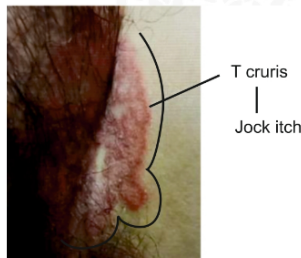
Active Space

- Tinea is a dermatophyte and is keratophilic, a typical epidermal disease, can go to full epidermis but not dermis or junction due to absence of keratin there.

Peripheral scale

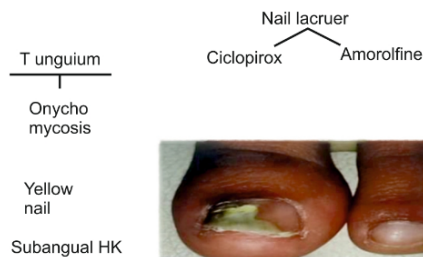


- T.Cruris in groin (jock itch)



- T.corporis in body
- T.appendice / athlete foot
- T.ungum / onychomycosis. Yellow nail, subungual hyperkeratosis. There will be separation of the nail, onycholysis.

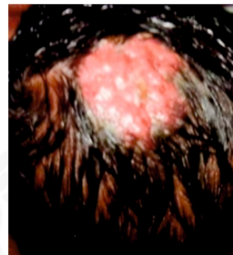
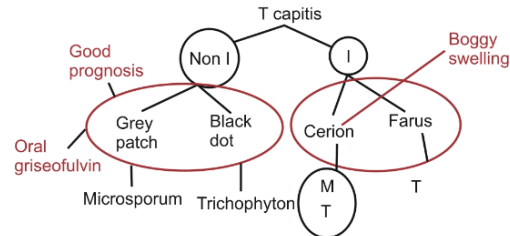
Treatment: Nail lacquers are used, these are nail paints. Eg Ciclopirox and amrolfine they get absorbed through thick nail.



- T.incognito : steroid modified lesion
- T.capitis: scalp of children, have alopecia and easily pluckable.

Fungal Infection

Topic Notes: 5



- Treatment for all other taenia except apitis is oral terbinafine or itraconazole.

SPOROTRICHOSIS

18:13

- Farmer or gardener having lesions due to thorn prick in limbs which have nodules, sinus along limbs.



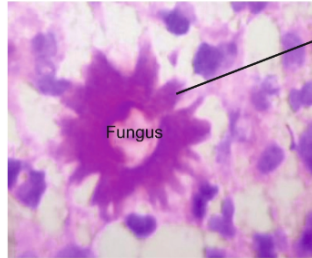
- Enter from soil and travels through lymphatics.
- Asteroid bodies in microscopy (splendore hoeppli phenomenon)

Active Space

Fungal Infection

Topic Notes: 5

Active Space



MYCETOMA

20:23

- It has a triad of sinus, foot swelling and grains (eumycetoma if black and actinomycetoma if white).
- Itraconazole for eumycetoma and welsh regimen for actinomycetoma which contain amikacin Rifampicin and cotrimoxazole.
- Actinomycotic organisms are nocardia, actinomyces, streptomyces.
- Eumycetoma is by *Madurella mycetomatis* (madura foot).



CHROMOBLASTOMYCOSIS

22:23

- Brown spores , called sclerotic, copper penny, medlar, muriform bodies.
- Melanin producing fungi so it produces a brown color.
- Organism produce a verrucous mass on foot means cauliflower like mass



Viral Infection

Topic Notes: 5

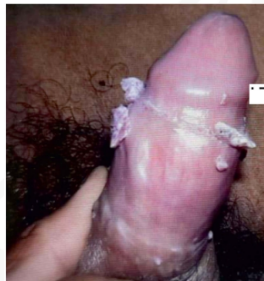
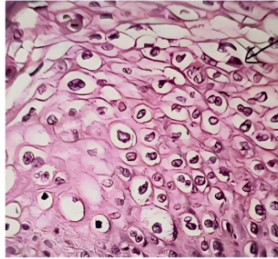
Viral Infection

Active Space

HPV

00:28

- On non genital skin it's benign but in genital area it becomes STD and progress to squamous cell carcinoma.
- External genital: condyloma acuminata (low risk for cancer) HPV 6,11
Internal genitals(cervix): verruca (High risk for cancer) HPV 16, 18, 31,33,45,52,58
- When HPV enters it create an empty space around nucleus of keratinocytes, infected cells called as koilocytes.



- Imiquimod is a topical drug which boosts immunity wherever it's applied, this will pick up HPV in condyloma acuminata.
- It need moisture for absorption.
- No effect on verucca because there is no moisture.



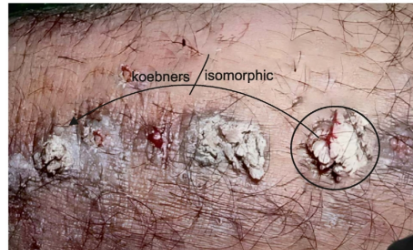
Viral Infection

Topic Notes: 5

- Verruca vulgaris if finger like
- Verruca plan if it's flat.



- Should burn it with electrocautery or freeze it with cryotherapy.
- Or use keratolytic salicylic acid or retinoids or TCA.



- Scratch increases the lesion in a straight line (koebners or isomorphic phenomenon).



- Podophyllin in topical application prevent division of koilocyte and prevent transfer to daughter cells and this need moisture.



Active Space

Viral Infection

Topic Notes: 5

HHV

8:47

Active Space

- HHV 1/ HSV 1 - Herpes labialis
- HHV 2 / HSV 2- herpes Genitalis
- HHV 3 or VZV- varicella
- HSV1: grouped painful vesicles in lips , on Acyclovir virus move to cervical ganglion and during fever it goes back, so called fever blisters.



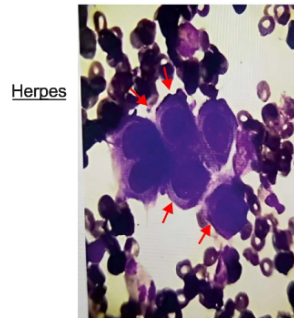
- Treatment is with Acyclovir.
- VZV- starts from nose through inhalation and goes to skin creating fever which will create vesicles then pustules and crust.
- Rash is central and not acral.
- From vesicle to form crust it take 7-10 days.
- After disease VZV enters spinal or cranial ganglia and reactivated during immunosuppression through the intercostal nerves- herpes zoster. The line along nerves are called dermatomes.
- It can also come out through facial nerve- ramsay hunt syndrome.



Viral Infection

Topic Notes: 5

- Tzank smear is done for diagnosis. Multinucleated giant cells are seen on giemsa staining of vesicle fluid.



- HHV7 cause Pityriasis Rosea
Cause collarette scales, peripheral scales.
First lesion is called herald or mother patch.
It's annular with collarette scales.
Herald patch is directed toward the rib line.
Rest of the patches follow a fir tree or a Christmas tree pattern.
Self resolving lesion



MOLLUSCUM CONTAGIOSUM VIRUS

16:51

- Red color inclusion bodies are made in keratinocytes called HP or molluscum bodies.



Active Space

Viral Infection

Topic Notes: 5

- MCV creates an umbilicated, shiny, dome like papules



- On scratching we can see pseudo koebner's phenomenon. Other causes of koebner's are vitiligo, LP, psoriasis.
- If genital molluscum seen then checkups for other STDs should be there since it's contagious.

Active Space

← **Parasitic Infection**

Topic Notes: 3

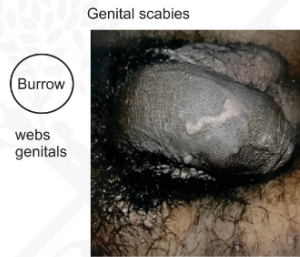
Parasitic Infection

Active Space

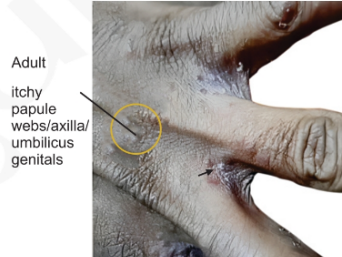
SCABIES

00:25

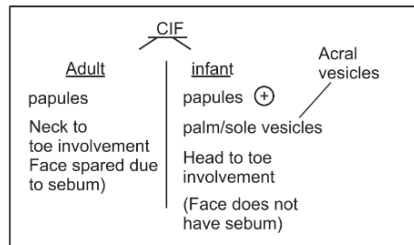
- Female mite enters through burrow and only reside in SC so it is dislodged itching.
- So it dislodge in clothes and spread to family
- Incubation period is 4wks, itch starts only after 4wks so asymptomatic family members should also get prophylaxis and clothes should be disinfectant.
- 5% permethrin is used overnight, it kills both adult and eggs. DOC for everyone.
- Ivermectin only kills adult so the egg is going to hatch on the 14th day so a second dose should be given after 14 days.



- Burrows seen in finger webs and genitals. Seen nicely in a Woods lamp.



- Classical lesion in adults are itchy papule in webs, axilla or genitals. Itching more at night, nocturnal.

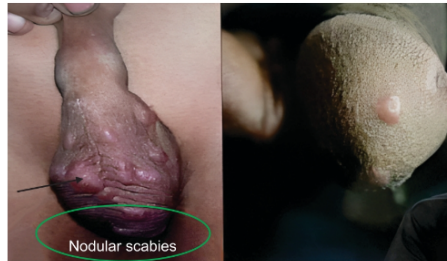


- HFMD are dd for acral vesicles in infants.

← **Parasitic Infection**
Topic Notes: 3

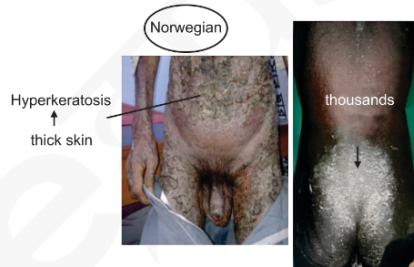


- Nodular scabies:



Nodules present in genitals and scrotum due to excessive immune response.
Permethrin should be given, steroid should also be given.

- Norwegian: looks like hyperkeratosis and psoriasis.



- Seen in HIV patients, there will be no immune response mite which will proliferate. There will be no itch. Too many mites, highly contagious. Also known as crusted keratotic scabies. 5% permethrin and oral ivermectin repeatedly given.

PEDICULOSIS

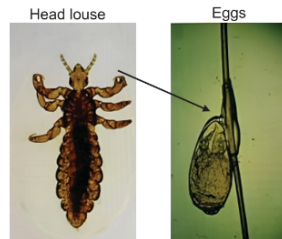
10:13

- Caused by louse.
- P.capitis/ head louse

Active Space

Parasitic Infection

Topic Notes: 3



They lay eggs called nits and crawls to cause itch.
Treatment, 1%permethrin.

- P.corporis /body louse



Doesnt stay in body for too long stay and come back to clothes.
Also called as vagabond disease.
Treatment: disinfectant clothes.

- P.pubis
Caused by crab louse, it has crab like claws which bites on pubic hair. Bite marks of this are called Macculae cerulea.
Treatment: 1%permethrin.

ERYTHEMA CHROMICUM MIVRANS

13:08

- Hard tick biting skin giving borrelia.
- Typical target lesion occurs which has 3 zones.
- Untreated becomes Lymes disease.



Active Space

Eczema

Topic Notes: 4

Eczema

Active Space

- It's inflammation exhibiting itch which on scratching causes oozing or exudation due to spongiosis (fluid in between epidermal cells).
- Inflammation can be acute or chronic.

ATOPIC DERMATITIS

01:21

- Is atopic IgE and Th2 levels are High.
- There will be a recurrent sneezing problem called atopic rhinitis. Asthma will also be there.
- Atopy is inherent but can switch the route of atopy.
- Chronic disease and relapses.
- **Clinical features:**
 1. Adult: Flexor folds like ante cubital, popliteal region.
 2. Children: Extensor areas, cheek, limbs.

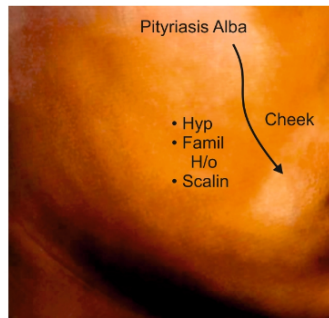


- Can become carriers of staph if oozing is there which can cause furuncles, abscess, pus etc.
- On chronic scratch skin becomes thick and black called lichenification.

Eczema

Topic Notes: 4

- Pityriasis alba: hypopigmentation in cheek with mother having asthma, also scaling.



- Dd for white patch on cheek is indeterminate Hansen's. No scaling and family history will be there. Bihar and UP are endemic areas.

CONTACT DERMATITIS

07:50

- There is an irritant and allergic CD.
 1. ICD:
 - Alkali, acids, strong soaps go inside and get inflammation itch and sometimes blisters.
 - No langerhans cell participation.
 - Everybody can get this.

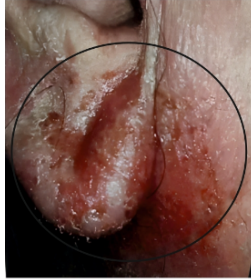


2. ACD
 - Metals, nickel PPD in hair dye act as antigen picked up by Langerhans to Lymph nodes.
 - Immune participation is there.
 - Type 4 hypersensitivity.
 - Some people don't get this.

Active Space

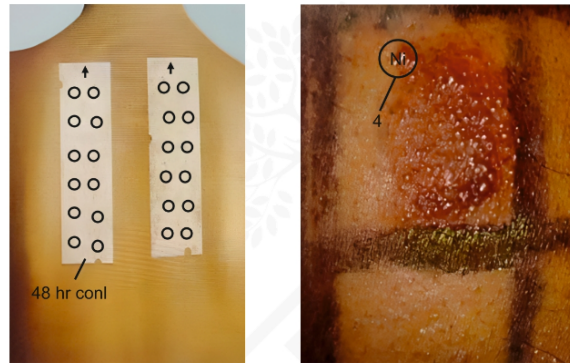
Eczema

Topic Notes: 4



Active Space

- Patch testing



To identify what is there in the artificial jewelry. On each aluminum chamber each metal is placed and kept in skin contact for 48hrs. Remove it and look for red color circles. Patients should be followed for day 4 and 7 also because many of them manifest in those days.

- Parthenium plant:





Eczema

Topic Notes: 4

Parthenium in air and sunlight becomes an antigen picked up by Langerhans.

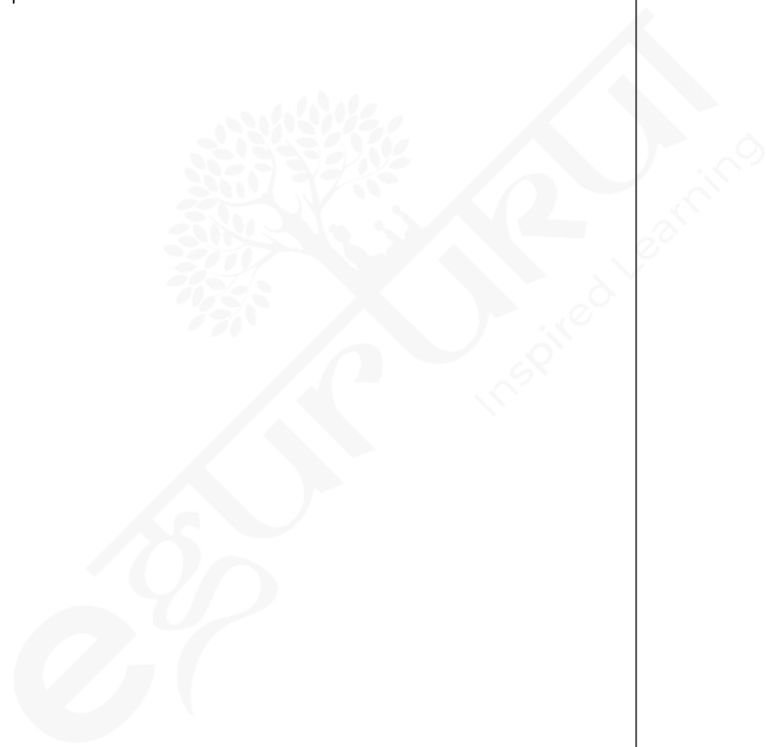
Phytophotodermatitis or Air borne contact dermatitis.

Photopatch: 2 parthenium patches on back , one is closed and UV light is given. Open side will become red.

Also called occupational CD (for farmers).

- Cement has potassium dichromate which causes ACD so can cause Occupational CD for cement workers.

Active Space



Drug Reaction

Topic Notes: 3

Drug Reaction

Active Space

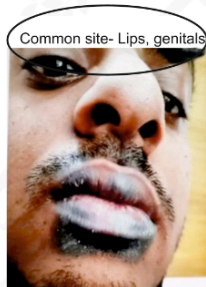
FIXED DRUG ERUPTION

00:28

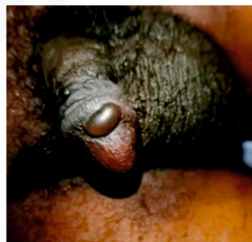
- Anti diarrhoeal drugs cause red patches which become blue and which will go away as drug stops.
- If same drug is taken redness returns on the same site ie fixed.
- Tinidazole, metronidazole, pain killers, sulphonamides.



- Dermal pigmentation.
- Common sites are lips genitalia.



- Bullous FDE has blisters



Blisters rupture and heal with dermal pigmentation.

Recurrent blisters and ulcers on genitalia.

Herpes has grouped vesicles and no dermal pigmentation will be there.

← Drug Reaction

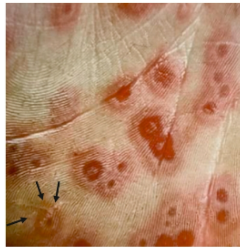
Topic Notes: 3

ERYTHEMA MULTIFORME

03:52

Active Space

- Has target or Bulls eye or iris lesions on acrofacial location.
- HSV 1 induced, can also be drug induced but rare.



- If EM is with oral ulcer then EM major and if not EM minor.
- Self limiting.

EPIDERMAL NECROLYSIS

05:54

- Separation of epidermis from dermis.
- Epidermis moves and dermis don't ie, Nikolsky sign is positive.
- Necrotic skin is black, gangrene is having red zone around it which is like 2 zones and called targetoid lesion.
- Atypical target lesion.
- Oral, genital and eye ulceration.
- Drug induce keratinocyte necrosis and necrotic skin falls off.

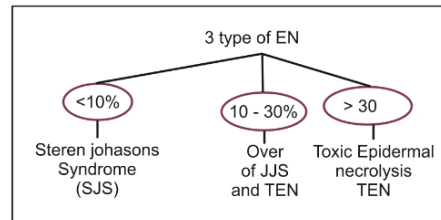


- Infections can occur in raw areas.

Drug Reaction

Topic Notes: 3

- 3 types according to percentage of body involved:



- Treatment: IVIg and cyclosporine.
- IVIg prevents necrosis and cyclosporine is a CD8 inhibitor.

Active Space

Blistering Disorders

Topic Notes: 5

Blistering Disorders

Active Space

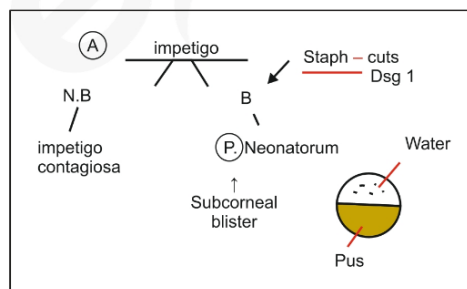
- **Epidermal blisters:** flaccid and easily rupture so presented with raw area. No scar formation as there is no collagen, heals with hyperpigmentation.
- **Junction or dermal blisters** are tight and intact, heals with scar and hypopigmentation.



IMPETIGO

02:37

- Can be non bullous or bullous.



- Hypopyon sign: Staph cuts DSG 1 cause subcorneal blistering or acantholysis and this blister will have water and pus by staph, pus being heavy in bottom.

Blistering Disorders

Topic Notes: 5

Hypopyon sign



- When staph enters the bloodstream SSSS occurs.
- Because of no antibody this will be DIF negative in contrast to pemphigus foliaceus.



Active Space

PEMPHIGUS

06:15

- Two types
 1. P.foliaceus:
 - Subcorneal, fragile, shallow raw area oozing water which dries up above causing scale or crust presentation.
 - Lesions happen in seborrheic areas and no mucosal ulcers. Leaf-like scales.



Blistering Disorders

Topic Notes: 5

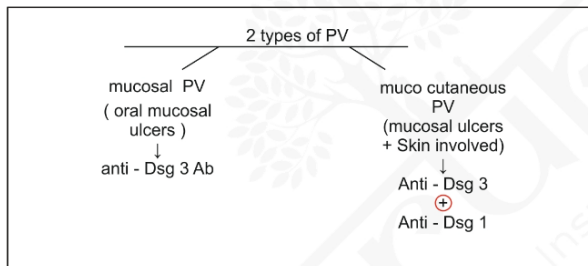
Active Space

2. P.vulgaris:

- Much deeper, intact blisters, rupturing causing open deep wound with mucosal ulcers.



- Two types:

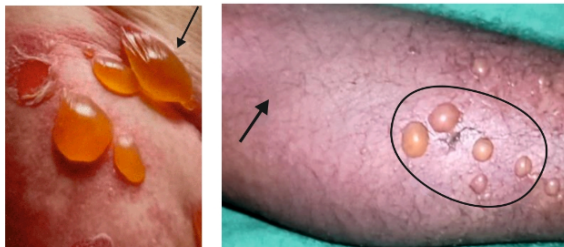


- Treatment: systemic steroids, suppress B and T cells. B cell inhibitors like Rituximab which suppress CD20 which only present on B cells

BULLOUS PEMPHIGOID

11:54

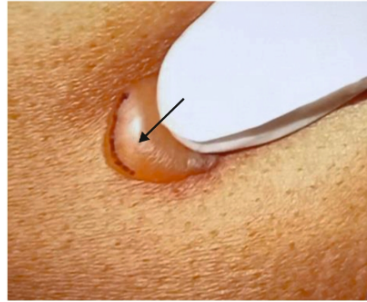
- Tense, itchy, old age blisters.
- BP in pregnancy is called pemphigoid gestationis.
- There is anti hemidesmosomes there which destroy hemidesmosomes which join basal cells with junction.



- Bulla spread sign:
Mark a side with pen and push the blister it move beyond it and don't break.

← Blistering Disorders

Topic Notes: 5



Also called as Lutz sign, asboe Hansen sign.

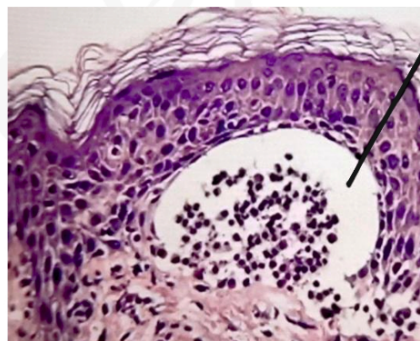
Same test for PV cause rupturing but moves.

	P	BP
Nikolsky	⊕	⊖
BSS	⊕	⊕

DERMATITIS HERPETIFORMIS

16:02

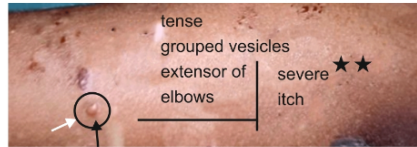
- Very itchy grouped vesicles. Many times only scratch marks seen due to that.
- Marker of internal coeliac disease. Coeliac disease is an autoimmune disease which creates antibodies against transglutaminase. Anti TG Ab instead of gut goes to tip of dermal papillae(molecular mimicry) now have papillary damage called as papillary blisters. Neutrophils comes there to form papillary microabscesses.



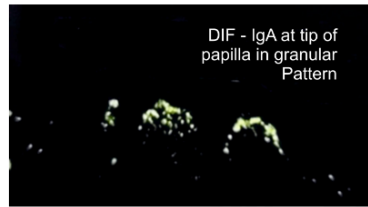
Active Space

Blistering Disorders

Topic Notes: 5



- Treatment: gluten free diet, dapsone (anti neutrophilic drug)
- DIF detect Ig A at tip of dermal papillae in granular pattern



Active Space