Dermatology
Handwritten Note

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Name: ____________________________________________

Subject: __________________________________________

Dermatology
Dermatology
- Dr Saurabh Jindal
3 Parts of Skin

1) Epidermis → DEJ (Dermo-epidermal Junction)
2) Dermis → Lobules
3) Fat (Panniculus)

Epidermal Rete Ridge
Dermal papilla

EPIDERMIS

4 Layers

1) STRATUM CORNEUM
    Thickest Layer
    Max. Keratin
    Corneum → means Keratin.

2) STRATUM GRANULOSUM
    granule
    Keratohyaline granule
    Thinnest Layer

3) STRATUM SPINOsum (SS)
    Spinoce Projecting coming out
    Max. Desmosome are present in SS
    AIIMS
4) Basal Layer
   For Division

   SITUATIONS
   For 3 LAYERS
   
   VLBW Infant
   Absent
   Stratum corneum

   Psoriasis ↓ Absent
   Acute Actinic Keratosis Absent
   S. granulatum — S. granulosum

   5 LAYERS — palm + sole
   S. corneum
   S. lucidum ⇒ non nucleated layer
   S. granulosum ? compression
   S. spongiosum ? artefact
   S. Basal

   Pressure (trauma)
   sc → 1000 mg
   sc → 1000 mg
   s. → 10 mg keratin
   S. Basal — 1 mg keratin

   Keratinisation of epidermal cells

   Lots of pressure
   sc → 1000 mg keratin (thick sc)

   Hyperkeratosis
Thick SS → Hypergranulosis
↓
Seen in LICHEN PLANUS

Thick SS → Acanthosis
↓
Seen in LICHEN PLANUS
PECTICIAS
eczema

SS + SB = Malphigian Layer

Cell go more horizontal

SB ← Division
↓
need nucleus

Nuclear Size

SC ×
SG •
SS •
SB •

shed off

28 days til shedding

14 days SC

14 days SB

TRANSIT TIME / TURN OVER TIME
Psoriasis

Hyperplasia of SE Layer.

Nucleated SC -- Less time to shed off

↓

PARAKERATOSIS

↑ 3 days

Reduce Div. of SE Layer = DNA Inhibitor

↓

Methotrexate

T cell stimulates SE cell to divide.

Remove T cell

1) Methotrexate

2) Cyclosporine

3) Biological drugs

Hyperkeratosis

Keratolytic Drug

Retinoid

Vit A like

EPIDERMAL CELLS

1) 95% of hair keratin cells are called

KERATINOCYTES

- Function:
  - Protection
  - Secretion of cytokines

- Immunological Role

- Derived from ectoderm
2. Rest 5%

- **Melanocytes (MC)**
  - Make melanin
  - UV light protection
  - Derived from neural crest

- **Langerhans cell (LC)**
  - Ag presenting cell
  - From bone marrow

- **Merkel Disc**
  - Touch receptor
  - Either from ectoderm or neural crest

Keratinocyte and Merkel's cell have Desmosome on their surface.

Melanocyte and Langerhans cell do not have Desmosome.

Desmosome joins 2 KC together.

Desmosome

Desmosome joins 2 KC together.

Desmosome: Strong

Desmosome: Desmoglein (Dsg)

Desmosome: Desmoplakins

Desmosome: Desmocollin
Keratinocyte cell cycle time = 311 hrs

MELANOCYTES

Melanocytes are **Dendritic** cells.
They make melanin, transports it via dendrite processes into KC [Epidermal melanin unit = 1:36]

Indians have **Type 5 skin (Brown Skin)**
Less melanin (Fairsken) or No melanin (Albinism)

↓ Chronic DNA damage

↓ Premalignant → Malignancy

(See Basal Cell Carcinoma (BCC), Melanoma)
Photo carcinogenesis
↓
cha. sun damage
[cumulative or light]

UVB = 290-320 nm
UVA = 320-400 nm

Causes skin burn

Faster skin
↓
more burning

Darker skin
↓
more tanning

Premalignant skin diseases

A) Sun exposure

\( \text{eq. Actinic Keratosis} \)
\[
\downarrow \text{means sun} \\
\downarrow \text{leads to SCC}
\]

B) May or may not be sun induced

1) Bowen's Disease - SCC in situ
   - restricted to epidermis

2) Oral leukoplakia

3) Oral erythroleukoplakia
4) Oral submucous fibrosis
5) Oral lichen planus

MALIGNANT SKIN DISEASES

1) BCC
   H/c Skin Cancer
   H/c type of BCC ⇒ NODULO-ULCERATIVE
   (Rodent Ulcer)

   Locally aggressive Skin Cancer
   Metastasis is Rare

C/F :
1) Nodules or Ulcerate on sun-exposed sites

2) Ulcers have
   Beaded | edge
   Rolled |
   Pearly

3) Telangiectasia on its surface

Rx: Moh's microsurgery
   pathology controlled dissec
H1c in organ transplant pts. due to immune suppression.

ETIOLOGY
1) Sun
2) Immuno-compromised
3) HPV - DNA virus
   - Oncogenic virus
     Integrates its DNA into host gene, divides along it.

Low-Risk
HPV 6,11
External genital warts

High Risk
HPV 16,18
Cervical warts

C/F
- Cauliflower masses
- Hyperkeratotic plaques
- Ulcer
- Metastasis
III Melanoma - Later.

* COLOUR OF SKIN depends on -

1) Melanin production
2) Transfer of melanin to KC
3) No. of melanosomes
   * Not the no. of melanocytes

Melanosomes
\[ \downarrow \]
Tyrosinase
\[ \downarrow \]
Tyrosine \[ \rightarrow \] Melanin

\[ \times \times \times \times \times \] No entry
\text{Barrier function} \[ \times \times \times \times \times \] No exit

gets altered:isphere
\text{epidermis is damaged}

a) Burn
b) Wound.
**Embryonal Phase**

![Diagram](image)

**Desmosome**

**Pemphigus**

Desmosome starts cutting

Acantholytic cell or Tzanck cell

Cut desmosome

Blister

Fluid

"pemphix" means Blister \( \Rightarrow \) Intercellular Disease

Y Desmosomes BREAK?

IgG Ab formed against Desmoglein.

Weak Desmosome
TARGET → Desmoglein
Ab → Anti-Desmoglein (IgG) \[ IgG \text{ Pemphigus} \]

TARGET → Desmocollin
Ab → Anti-Desmocollin (IgA) \[ IgA \text{ Pemphigus} \]

TARGET → Desmoplakin
Ab → Anti-Desmoplakin (IgA/IgG/IgM) \[ Paraneoplastic \text{ Pemphigus} \]

\[ IgG \text{ Pemphigus} \]

\[ \frac{sc}{sc} \leftarrow Dsg1 \rightarrow \frac{ss}{ss} \]

\[ \frac{ss}{ss} \leftarrow Dsg3 \rightarrow \frac{ss}{ss} \]

\[ \text{Subcorneal Blister} = P. \text{ foliaceus} \]

\[ \text{Suprabasal Blister} = P. \text{ Vulgaris} - \text{common} \]

\[ \text{P. Foliaceus} \]

\[ \text{P. Vulgaris} \]

\[ \text{Raw of Tombstone appearance} \]
INTERCELLULAR CEMENT

Intercellular cement (lipid) like a glue

KC

Lamellar Body (Max. in granular layer) Odland Body

ECZEMA/DERMATITIS

Defective Cement

Fluid

Intercellular edema (Spongiosis)

Desmosomes are 0

Dedema or H₂O is move in Periiphery

Booing is a sign of acute eczema

CONGENITAL EPIDERMAL BLISTERS

Keratin

Faggotin → protein aggregating

Keratin

Ca²⁺ ATPase pump

Desmosome

Both need Ca²⁺
DARIER'S DISEASE (DD) + HAILEY-HAILEY DISEASE (HHB)

Mutation in Ca-ATPase pump -> birth

Weak KC
Circular KC (Acantholytic cell)

DD
Keratosis Folliculitis
Correct Incorrect word:
There is No follicular involvement

Circular weak KC

Compensatory ↑ of keratin
Synthesis
Circular strong KC

C/F:
Hyperkeratotic spiny sharp papules on skin
More in sebaceous areas

Nails: V shaped nicking of nails
Red/white longitudinal nail lines
PALM - Palmar Pit

Rx = Retinoids

DARIER'S DISEASE

Dyskeratotic cells in
sc = corps grain

Dyskeratotic cells in
SG, corps rond

Premature Keratinisation = Dyskeratosis

Hyperkeratosis

- sc → 100000
- SG → 10000
- SS → 1000
- SB → 1mg

OTHER CAUSES FOR DYSKERATOSIS

1) Premalignant Skin Disease
2) Malignant Skin Disease

HHD: No compensatory hyperkeratosis
Hence Presents as Blisters

GENE MUTATION:

HHD
Ca ATPase [2A1] gene

Dancers
Ca ATPase [2A2] gene
**Epidermolysis Bullosa Simplex**

Trauma induced blisters

No Keratin 5,14 since Birth.

N Desmosome

Fragile basal Keratinocytes

↓ Trauma

No Acantholysis

Blister in basal layer

3 Types of Epidermolysis Bullosa

EB Simplex

EB Junctional

EB Dystrophica

S. Basal

On DEJ

in Dermis.
**DIRECT IMMUNOFLUORESCENCE**

Picks up Antibodies in Blistering Disorders

- **Pemphigus** → DIF Ø
- DD/ HHD/ EBS | EBJ/ EBD → DIF Ø

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**ACANTHOLYSIS**

1° (Pulling Problem)

1) Pemphigus
2) Darier's Disease
3) HHD
4) Bullous Impetigo
5) Staphylococcal Scalded Skin Syndrome (SSSS)

2° Acantholysis

HSV

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![Diagram of blistering process]

- Balloning
- Blister
- Acantholytic cell
ACANTHOLYTIC CELL

1) Circular
2) Large nucleus
3) Narrow cytoplasm
4) Prominent nucleoli

APPENDAGE / ADNEXA

ECCRINE SWEAT GLAND

- Eccrine Duct
- Pilosebaceous Unit
- Acrine
- Perineum
- Areola
- Supplied by Adrenergic Nerves

EROTIC SPOTS

ACNE VULGARIS

HILARIA (occlusion due to S. epidermidis)

HIDRADENITIS SUPPURATIVA

FOX FORDYCE DISEASE
ACNE VULGARIS

Pathogenesis:
1) Keratinisation of follicular epithelium
2) Proliferation of Propionibacterium acnes
3) Sebum production in seborrheic area
4) Dermal inflammation

Pathogenesis of comedone:

STAGE - 1 ACNE
2 TYPES

BLACK COMEDONE
(Open comedone)
Black Head

WHITE COMEDONE
(Closed)
White Head

Rx = Topical Retinoids (Adapalene/ Tretinoin)
S/E → skin irritation
→ photosensitivity
  hence applied at night
Stage 2 = (Stage 1 + Papule)

Rx = Topical Retinoid + Topical Antibiotics
   - Clindamycin
   - Clarithromycin
   - Dapsone

Stage 3

Stage 2 + Pustule

Rx = Topical Retinoid + Oral Doxy

Amitracycline → Most effective
   More side effects
   1) Hepatotoxicity
   2) Blush skin pigmentation
      on long term use
      - Nail
      - Acne scars

Drug Resistant Acne

Topical Benzoyl Peroxide

Safe in

Release nascent [O] on skin surface
[Bactericidal]
Topical Azelaic Acid

- Bactericidal
- Tyrosinase Inhibitor → reduce post acne pigmentation.

**STAGE 4 (stage 3 + Nodule/Cyst)**

Acne has polymorphic lesions

Rx = Oral Retinoids

- Acitretin = Keratolytic used in psoriasis
- Isotretinoin = Keratolytic + Sebolytic

(ATSMS, Nov 15)

**STAGE 5 (ACNE CONGLOMERA)**

STAGE 4 + Severe Inflammation -

- Discharge sinuses
- Fever
- Chest/back

Rx = Oral isotretinoin + anti inflammatory (steroids)

Recalcitrant Pustular Acne → Isotretinoin

1. Not responding

**ACNEIFORM ERUPTIONS:**

Drug induced Acne

Monomorphic lesions on chest & back.

Popul Disease

Causes:

1. Oral & topical steroids
2. Anabolic steroids
3. INH, Rifampicin
4. Phenytin, Pheno barbitone
HORMONAL ACNE

eg. PCOD

presents as:

- Acne
- Androgenetic Alopexia on scalp
- Hirsutism on face
- Irregular menses

RX = Androgen Blocker

- Cyproterone acetate
- Drosperinone

H/c SIDE EFFECT of Isoretinoin

- DRY LIPS (Cheilitis)

Other S/E:

1) Hyperlipidemia
2) Category 'X'
3) Period of contraception after stopping
   Isoretinoin → 1 month.
   Accutane → 2 month.
HIDRADENITIS SUPPURATIVA

Keratin obstruction of apocrine ducts extending into hair follicles

Lessons similar to Acne but in Apocrine Areas
Hence called INVERSE ACNE

2° Infection → S. Aureus → Creates Abscesses + Draining Sinuses in Apocrine Areas

Rx = Retinoid + Broad spectrum oral Antibiotics, Surgical debridement of pus.
FOX FORDYCE DISEASE
- Lesser keratin obstruct as compared to hidradenitis
- Only inflammatory papules in apocrine areas
- No comedons seen.

FORDYCE SPOTS

Ectopic sebaceous gland or upper lip or buccal mucosa
asymptomatic
No Rx required

LANGERHANS CELL
Derived from Bone Marrow
Pick up Ag in epidermis

Send to Local L.N. for processing
TH₁ response → TH₂ response
(T cell) → (B cell)

HPV puts Langerhans cell to sleep & creates infection in epidermis.
Hence Rx for warts is Langerhans cell stimulator [Topical Imiquimod]
LICHEN PLANUS

sb(Ag) → DEJ → 1st mistake
Lang. cells.

T cells (Band of)
Lympho phenomenon

Local L.N.

2nd mistake

Yes

Bullet/LytoKenes

↑←gaps in DEJ called Max Joseph space

T cells free at the

Ag causing
Liquefactive degeneration of junction.

Neutile

Basal Mc

Fall into dermis

Fall into dermis

Cirrhatte bodies
or

Collard bodies
or

Cytoplasm bodies

Website: http://mbbshelp.com
WhatsApp: http://mbbshelp.com/whatsapp
Melanin colour  Clinical skin colour

- BLACK
- BROWN
- PURPLE
- BLUE/GREY

Other changes seen in LP:
- Hyperkeratosis
- Hypergranulosis
- Pigment incontinence
- Acanthosis (thickened spinous layer)

> Band of Lymphocyte + Basal cell degeneration
   = Interface Dermatitis

> Basal cell degeneration (Host cell histology feature)

OTHER CAUSES OF INTERFACE DERMATITIS
- Fixed drug eruption
- Erythema multiforme
- Graft vs Host Disease
MELASMA

Disorder of Pigmentation (Hyperfunctioning melanocytes)

**Trigger Factors:**

1) Sun exposure
2) OCPs
3) $\odot$ (chloasma)

\[ \odot > \odot \]

**EF:**

1) Brown hyperpigmented patches at cheeks, nose 
   photo sensitivity
2) Chronic disease

**Rx:**

1) Sunscreen
2) Tyrosinase Inhibitors e.g. 1) Kojic acid
   2) Hydroquinone (2-4%)
   3) Azelaic Acid
   4) Arbutin
3) Topical Retinoid
4) Topical Steroid (melanocyte inhibitors)

**Kligman Regimen**

Topical hydroquinone $+$
Topical Retinoid $+$
Topical Steroid
SLE

Present are persistent erythema on Malar area
2. Photosensitivity
Rash is in a butterfly pattern.

ROSACEA

» Trigger Factor
1) Sun
2) Alcohol
3) Hot spicy food
4) Emotional Upset
5) Demodex mite
6) Exercise

» Stages
1. Telangiectasia • Intermittent flushing (Episodic flushing)
2. Papule • Pustules
3. Rhinophyma (Potato Nose)

Rx: Avoid triggers
Topical Steroid (C/I) • Because they cause telangiectasia

Orally: Dicycllone - Doc
1, acts by anti-inflammatory effect
Topical Metronidazole or Clindamycin (anti-inflammatory drug)
ACANTHOSIS NIGRICANS → misnomer
Black velvety areas in flexures

PATHOLOGY:

\[
\text{Insulin Resistance} \\
\downarrow \\
\text{ILGF (Insulin like growth factor)} \\
\downarrow \\
\text{Thick Skin.}
\]

CAUSES:
1) Obesity Q
2) DM
3) PCOD
4) Drugs (Systemic steroids, nicotine acid)
5) Gastro Adenoc Ca → Rarest Cause Q.

Not a melanin disease

ON BIOPSY:

\[
\text{PAPILLOMATOSIS} Q \\
\text{HYPERKERATOSIS} Q
\]

Papilae touches the SC
### Classification of Skin Lesions

**Primary Lesions**

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat</td>
<td>Less than 0.5cm</td>
<td>Macule</td>
</tr>
<tr>
<td></td>
<td>Less than 1cm</td>
<td>Pustule</td>
</tr>
<tr>
<td>Pus</td>
<td>More than</td>
<td>Patch</td>
</tr>
<tr>
<td>Fluid</td>
<td>More than</td>
<td>Pustule</td>
</tr>
<tr>
<td>Solid</td>
<td>More than</td>
<td>Bulla</td>
</tr>
<tr>
<td>Elevation</td>
<td>More than</td>
<td>Plaque</td>
</tr>
<tr>
<td></td>
<td>More than</td>
<td>Nodule</td>
</tr>
</tbody>
</table>

### Level of Blisters

- **Epidermal**
  - Fluid
  - Ruptured by itself
  - Doesn’t heal or scarring
  - Heals with hyperpigmentation

- **Dermal / DEJ**
  - Tense
  - Doesn’t rupture by itself
  - Heals with scarring, milia
  - Heals with hypopigmentation

### Secondary Lesions

1. **Scale**
   - Visible exfoliation of skin
   - Silvery scales: Psothasis
   - Powdery: Pityriasis Versicolor
   - Collarette (small): Pityriasis Rosea
     - Hanging & Curtain sign
LEAF LIKE SCALES - *Pemphigus foliaceus*

More fluid \( \rightarrow \) always ruptures

Less fluid \( \rightarrow \) less vehement

ruptures, fluid released
forms scales on raw surface

---

P

Sebaceous areas

Duodenal ulcer

Mucosa - absent

---

CRUST:

Dried exudate

Usually black in colour

---

EROSION, ULCER, FISSURE:

Fissure (vertical crack in skin)

Erosion \( \leftarrow \) ulcer

---

LICHEN SIMPLEX CHRONICUS (Lichenification)

Thickening

Increased Hyperpigmentation

Skin markings

50% chronic itchy skin Disease
HAIRS

HAIRS 2 TYPES

TERMINAL  ↓  VELLUS

↓  ↓

-cheek  ↓  -chin

Terminal  →  vellus

called a

-ANDROGENETIC ALOPECIA (AGA)

MALE AGA

→ Starts to hair line recession
→ followed by frontal + vertex balding
→ Lateral + Post Density

Rx: 5% Minoxidil
oral finasteride 1mg/day

Male AGA GRADED from

Least  →  Most

NORWOOD-HAMILTON Grading Scale

FEMALE AGA

No hair line recession

Widening of central parting

Rx: 2% Minoxidil
Androgen Blocker

1 → 3

LUDWIG Grading Scale
DISORDERS OF MELANIN

1. DISORDERS OF HYPO/DEPIGMENTATION
   A. ALBINISM

   ![Diagram of albinism process]

   Tyrosine
   Tyrosinase × at birth
   Melanin

   Melanocyte tnt
   Melanin absent

   Congenital
   Diffuse white skin & white hair
   No mel. Pigmentation

2. PIEBALDISM

   ![Diagram of piebaldism process]

   Localised white patch
   Localised neural crest dysfunc

   NO Melanocytes
   NO melanin

   Congenital

   * Areas of B'skin within white patch
   * White fore lock
   * Lock of hair
WAARDENBERG SYNDROME

Piebaldism + Deafness + Inter pupillary Distance

C) NEVUS DEPLIGMENTOSUS / NEVUS ACHROMICUS =

Birth mark

Localised white patch since birth

Pathology:
Melanocyte ↓
Melanin transfer to keratinocytes ↓

D) NEVUS ANEMICUS =

Vascular Ab(N)

Faint hypopigmented patch since birth
Not a melanin disorder

E) VITILIGO =

Acquired, not congenital

Autoimmune Disorder

Depigmented Lesion

The underlying Disease: Thyroid Disease

Melanocyte (Ag) → Lang. cell

1st met. → LN

Tissue
**Poor Prognostic Factors:**

1) On Bony prominences
2) Leucotrichia
3) Lip-Tip
4) Thyroid Disease

**Classification of Vitiligo**

**Localised**
- Focal
- Segmental
- Mucosal
- Lip-Tip

**Generalised**
- Autofocal
- Vitiligo Vulgaris (HV)
- Universal

Rx = Immunosuppressives

Phototherapy

Vitiligo

**UV Light**

stimulates
melanin

Inhibits
lymphocyte

Inhibits
Leu
**UVA Phototherapy**

Need a sensitizer called 'Psoralen'

Topical → Oral

(Generalised cases) → (Localized cases)

Wait for 1-2 hours

Give UVA light

PuVA Therapy

Psoralen → UVA

---

**UVB Phototherapy**

UVB (290-320nm)

No need for Psoralen

Broad Band → Narrow Band

UVB (290-320nm) → [Bisetherapy]

For localized cases:

Topical immuno-suppressors

Steroid → Tacrolimus

For generalised cases:

Systemic immuno-suppressors

Steroid → Azathioprine → Methotrexate
Surgical (Done only for stable vitiligo) ↓
No new lesions "past 2 years."

1. Split Skin Graft

⑥ CONTACT LEUCODERMA

Agents causing Leucoderma

1) Bindi (commonest)
   - Para tertiary Butyl Phenol (PTBP)

2) Footwear/plastic
   - Monobenzyl ether of hydroquinone (MBEH)
     Most potent agent
     Useful in universal vitiligo — to depigment &
     Remaining skin

⑦ DISORDERS OF HYPERPIGMENTATION

(a) Melanocytic NEVUS (common mole)

Brown (Bunching of HC)

Proliferation of melanocyte

Blue
1) CONGENITAL MELANOCYTIC NEVUS (CMN)

Giant Nevus (>20cm) has risk for malignancy
Melanoma

B) ACQUIRED MELANOCYTIC NEVUS (AMN)

Junctional AMN

Brown Macule

DEJ + Dermis
Compound AMN

Cells at Dermis
are inactive

Brown Papule

Dermis

Intradermal AMN

Skin Coloured Nodule

C) NEVUS OF OTA

• Dermal melanocytic nevus
• Blue in colour
• Along Trigeminal N/V
• U/L
• Congenital
• Along E Blue Sclera on same side

D) NEVUS OF ITO (similar to nevus of OTA)

• Shoulder
• Upper Back
• Clavicular Area
E) MONGOLIAN SPOT

- Brown
- Site: Lumbosacral area
- Self Resolving by puberty

F) BECKER'S NEVUS Q.
- Epidermal melanocytic nevus
  - Hence Brown in colour
  - On Shoulder, Chest, Upper Back
  - Onset -> Adolescents
  - Due to androgen sensitivity causing hypertrichosis
    + Acne inside the Brown patch.
  - Rx = LASER.

G) MALIGNANT MELANOMA

R/F:
1. Face skin
2. Giant CMN
3. Atypical / Dysplastic Nevus
4) Family H/o.
5) Xeroderma Pigmentosum
   (DNA repair disorder)

CRITERIA
A → Asymmetry
B → Border (irregular)
C → Colour (multiple)
D → Diameter > 6mm
E → Evolution

TYPES
1) LENTIGO MALIGNA (melanoma in situ)

Brown

Horizontal phase

- cell travel in single line along basal layer

Best prognosis

2) LENTIGO MALIGNA MELANOMA

10-15 years

Not very good

develop a vertical phase
37 SUPERFICIAL SPREADING MELANOMA

H/C type in world

---

multiple linear

early vertical phase

47 NODULAR MELANOMA

---

only vertical

POOREST PROGNOSIS

5) AMELANOTIC MELANOMA

→ Non pigmented
→ Variant of nodular melanoma

6) ACRAL MELANOMA

→ Extremity

IO: Excisional Skin Biopsy

Histological Grading

BRESLOW

---

CLARKE

---

depth of melanoma

measured in mm

outdated
Rx = Surgical excision.

**Mast Cell Disorders**

- Mast cells: X
- Mast cell: □
- Mast cells \[ \text{very tough membrane} \]

(A) **Urticaria (HIVE)**
- Disease of fragile mast cell membrane
- Depth is ok

- Rupture

- \[ \text{Histamine} \] leukotriene on mast cell surface
  1) Redness
  2) Edema
  3) Itching (transient) lesions

- \[ \text{IgE} \] 
- \[ \text{Fe} \] 
- \[ \text{Ag} \] 

- Create inflammation weakens mast cell
TRIGGERS FOR MAST CELL RUPTURE

A) Acute Triggers
- Acute urticaria (<6 weeks)
  - Food
  - Drugs
  - Infections

B) Chronic Triggers
- Chronic urticaria (>6 weeks)
  1) Autoimmune urticaria
     - IgE antibodies against IgG
     - Associated with autoimmune thyroiditis.
  2) Idiopathic urticaria
     - Trigger is unknown.
  3) Physical urticaria
     - Trigger is physical
     - Cold → Cold urticaria
     - Sun → Solar urticaria
     - Sweat (exercise) → Cholinergic urticaria
     - Scratch → Dermographism
     - Water → Acquagenic urticaria
RX

1. Acute cases - Remove Ag
   Chronic cases - Ag removal difficult
   1. Anti-
      - H1 Antihistamines
        1st gen
        - More sedative
        - Eg. Hydroxyzine
      2nd gen
        - Less sedative
        - Eg. Levocetirizine
        - Fexofenadine
        - Loratadene
        - Preferred

2. Anti-
   - H2 Antihistamines
     - Eg. Ranitidine
     - Cimetidene

3. Anti-
   - Leukotrienes
     - Eg. Montelukast

4. For autoimmune urticaria
   - Immunosuppressives
     - Eg. Steroids
     - Cyclosporine
     - Azathioprine
     - Methotrexate

5. Omalizumab
   - Ab
   - Monoclonal
   - Anti-IgE drug
(B) ANGIOEDEMA
also called as QUINCKE'S EDema
Rupture of mast cell in subcutaneous fat
Fat doesn't have itch n/v
No Redness
But oedema is very prominent
Because fat is a loose tissue
Eyelids/ lips
A/f resp. oedema - sudden death.

Rx: If lip, eye involved - Try Hydrocortisone
If resp. - Try adrenaline

HEREDITARY ANGIOEDEMA
C₁ esterase inhibitor
<=
Bradykinin

In HAE → C₁ esterase enzyme inhibitor enzyme deficiency
Hence Kinin Levels ↑
Triggering angioedema

AD inheritance
Low complement (C₄) - Screening Test
**TYPES**

1. Reduced amount of enzyme
2. Amount 0, inactive enzyme

3. MASTOCYTOSIS (URTICARIA PIEMENTOSA)
   - Mast cell ? no.
   - On rubbing

Brown

Producing melanin

Mast cell → stimulate basal proliferation melanocyte

Presents as BROWN Hyperpigmented patch, plaque or nodule on TRUNK of a CHILD

Svatching on Brown patch

↓

Mast cell rupture (superficial)

Urticaria (Red, elevated, itchy)

DARIER'S SIGN

Other Causes:

1. Xanthogranuloma
2. Histiocytosis
3. Leukemia

Pseudo-Darier's Sign

Smooth H/Ls Hamartoma
SHAPES OF SKIN LESION

1) ANNULAR (RIng)
   - active border
   - central clearing
   - e.g. Tinea [Ring worm]
   b) BB Hansen
   c) Herald Patch of Pityriasis Rosea

2) CIRCINATE
   - multiple circles
   - e.g. Circinate Balanitis (Reiter's Disease)

3) LINEAR NODULES, discharging sinus, along lymphatics
   - Causes
     - Sporotrichosis: caused by Sporothrix schenckii
     - FISH TANK GRANULOMA / SWIMMING POOL GRANULOMA
     - caused by Mycobacterium marinum

4) ISOMORPHIC OR KOEBNER'S PHENOMENON
   - same morphology
   - Scratch / Linear Trauma
   - New lesions of psoriasis in scratched line
Types of Koebner's Phenomenon

True
(autoimmune)
Psoriasis
Lichen Planus
Vitiligo

False
(Viral)
Wart (verruca vulgaris)
Molluscum
Due to auto-inoculation while scratching.

Rare
Dacron's Disease
HHD
Erythema multiforme
Kaposi's Sarcoma
Lichen Sclerosus
Lichen nitidus

Reverse Koebner
Psoriasis

5) Target Lesion / Bull's Eye / Iris Lesion

E.g., Erythema Multiforme.
Erythema Chronicum Migrans

Erythematous / Rare
Pale oedema
Dusky Centre

Tests in Dermatology

A) Wood's Lamp
B) Histopathology
**WOOD'S LAMP**

- 365nm
- Composition: Barium silicate + 9% nickel oxide

[Diagram of glass tubes giving out 365nm light]

**Use**

1) **Tinea Capitis**

   Fungal (Dermatophyte)

   Species

   Trichophyton > Epidermophyton > Microsporum

   Keratophilic fungus

   nail, hairs

   [Illustrations of ectothrix and endothrix]

   Usually by Microsporum

   + on woodlamp

   Bluish green fluorescence

   By Trichophyton

   + on wood's lamp
27. **Lymphatic -**
   / Caused by Corynebacterium minutissimum
   / Red patches → in groin & axilla
   / Asymptomatic
   / On Wood's Lamp: "CORAL RED FLUORESCENCE"

37. **Pityriasis Versicolor -**
   / Fungal infection by Malassezia
   / On Wood's Lamp: YELLOW FLUORESCENCE

4) **Bacterial Scabies -**
   / On Wood's Lamp: GREEN

5) **Urine in Porphyria -**
   / or Blister fluid
   / On Wood's Lamp: PINK/RED

6) **Vitiligo -**
   / WHITE

7) **Ash Leaf Macule -**
   / WHITE, more prominent on Wood's

8)
**PORPHYRIA**

1. Visible Light
   - Neutralized by Porphyrins in dermis

   →

   - Abnormal Dermal Porphyrin
   - No neutralization of light
   - Dermal Damage
   - Dermal tense blisters in light-exposed areas

**HISTOLOGY**

1. By Punch Biopsy Instrument
   - Plastic part
   - Metal part going into skin

2. Incision Biopsy
3. Excision Biopsy
4. Shave Biopsy (JIPMER)
   - Superficial removal of skin & horizontal movement of blade used for superficial elevation lesions
1) Psoriasis:

- Break Trauma
- Suprapapillary thinning
- Intermittent pinpoint bleed
- Auspitz Sign

Auspitz sign is demonstrated after the Grattage Test (scrapping) on scrapping, candle wax like scales are dislodged.

Bulkeley membrane is a thin membrane at the lower part of corneum. It needs to be dislodged to see bleeding points.

- Acanthosis
- Hunzake's microabscess (S. corneum)
- S. granulosum - absent
- Spongiform pustule of Kogoj (S. spinosum)
- Neutrophils

Less neutrophils in corneum ⇒ Microabscess not a macroabscess.

More neutrophils ⇒ Corneum ⇒ Microabscess + Macroabscess

Pustular Psoriasis

Sterile pustule.
3. MYCOSIS FUNGOIDES (MF)

MISNOMER

NO Fungus.

A type of CTCL (Cutaneous T cell Lymphoma)

CD4+ Malignant dermal T cell.

\[ \text{Sezary Cell} \rightarrow \text{Display Epidermotropism} \]

When Sezary cell go up = Early MF

\[ \text{Early MF} \]

\[ \text{Late MF (Se Sezary Syndrome)} \]

\[ \text{Vessel} \]
FEATURES OF SEZZARY SYNDROME:

1) Sezzary cells in Blood
2) Generalised lymphadenopathy
3) Erythroderma/Explosive Dermatitis
4) Mean > 90% body surface area involvement
   Erythro - Red
   Explosive - Scaly/Peeling off
   4F - Red scaly skin in > 90% body surface

STAGES OF MF:

1) I → Patch stage MF
2) II → Plaque stage MF
3) III → Tumour
4) IV → Erythroderma stage

RX OF MF:

17 EARLY:

RX from outside
Skin Directed Therapy (SDT)

a) Topical Steroid
b) Phototherapy
c) Electron Beam Therapy (EBT)

uv light
2) **LATE**

Rx from inside.
Chemotherapy

**DERMO-EPIDERMAL JUNCTION (DEJ)**

Desmosome

Desmosome

Hemidesmosome

Down contains Protein called BP-1 (BP-230)

**BASAL KERATINOCYTE**

**LAMINA LUCIDA**

**LAMINA DENSIA**

**DERMIS**

BP → Bullous Pemphigoid

CP → Cicatricial

**LIGA** → Linear IgA Disease

**EBA** → Epidermolysis Bullosa Acquisita
SALT SPLIT TECHNIQUE
Splitting of skin at Junc of Lucida - Dense on putting the skin in saturated sol of salt

Roof Blister
↓
BP, LP, LIGA;
EBJ

Floor Blister

① Bullous Pemphigoid

Ag
↓
BP1 < BP2

Ab (IgG)
↓
Anti BP1 Anti BP2

Level of Blister = Lucida (Acquered)

DIF +

② Cicatricial Pemphigoid

Ag → BP2

Ab → Anti BP2 (IgG)

Level of Blister = Lucida (Acquered)

DIF +
LGA
- $Ag = BP_2$
- $Ab = Anti\;BP_2\; (IgA)$
- Level = Lucida
- DIF $\mathbf{+}$

EBJ
- $Ag = Nil$
- $Ab = Nil$
- Absent Laminin since Birth
- Level = Lucida
- DIF $\mathbf{-}$

EBD
- $Ag = Nil$
- $Ab = Nil\; (absent\;collagen\;7\;since\;Birth)$
- Level = Dermis
- DIF $\mathbf{-}$

EBA
- $Ag = Collagen\;7$
- $Ab = Anti\;collagen\;7\; (IgG)$
- Level = Dermis
- DIF $\mathbf{+}$
DIF

Sample a skin biopsy from Perilesional Skin for DIF.
While for routine H&E Lesional Biopsy is taken

Pemphigus Foliaceus

IgG, C3 in Punched Intercellular Pattern

Pemphigus Vulgaris

Linear IgG, C3

Linear IgA = LIGA

Linear BP/CP/ EBA

Ig Deemosome ← IgG Ab ← Anti- Anti IgG

SCALP HAIR CYCLE

Long

Follicle

84%

Anagen

(growing) 3yr

Cotagen

2%

Transitional 3 weeks

Shorter Follicle

Telagen

(19%)

CLUB HAIR

Website: http://mbbshelp.com
WhatsApp: http://mbbshelp.com/whatsapp
**TELOGEN**
> 100 hairs/day

*Telogen effluvium*

**ANAGEN**

1 hair/day

*Anagen effluvium*  
*E.g.* Hair Loss in Chemotherapy

---

**ACUTE TELOGEN EFFLUVION**

Hair loss occurs acutely after 3 months of an acute metabolic insult to the body.

*E.g.* Severe Fever, Labour

No Rx Required, only Counseling.

---

**CHRONIC TELOGEN EFFLUVION**

Hair loss occurs chronically after chronic stressors.

*E.g.* Hypothyroidism, Anaemia, Nutritional Deficiency

*Cause needs to be Rx.*
**Blaschko Lines**

Dermatome ↓ along nerves ↓ Herpes Zoster

**Developmental Lines** or keratin migration line

**Incontinentia Pigmenti** (AIIMs)

**X-Linked Dominant Disorder**

4 stages

Blister ↓

Verrucous (cauliflower-like) ↓

Hyperpigmentation ↓

Hypopigmentation
LINEAR VERRUOUS EPIDERMAL NEVUS
Along Blashko Cauliflower Epidermis since birth

Presents as cauliflower-like masses along Blaschko line since birth persist throughout life.

Histopath:
Epidermolytic Hyperkeratosis
In epidermis Breakdown,
In stratum granulosum

NEUROFIBROMATOSIS
Skin Features:
NF 1 → also called Von Recklinghausen Disease

1) AXILLARY FRECKLES (pathognomonic)
   → CROWE'S SIGN

2) CAFE AU LAIT MACULES (CALM)
   → also seen in
      a) Tuberous sclerosis
      b) US people
      c) Mc-Cune Albright Syndrome

CALM margin
NF
Coast of California
Mc-Cune

CALM margin
Coast of California
3) NEUROFIBROMA - BUTTON HOLE SIGN

On pressing a blunt object on neurofibromas, resistant is not felt in derma due to a dermal defect.

TUBEROUS SCLEROSIS/EPILEPSIA

Skin features:

17) ASH LEAF MACULE
- Earliest Mole Sign
- Not at birth
- Hypopigmented patch
- Become more visible on wood's lamp

Tuber: potato-like tumours in CNS
Epi: epilepsy
Loi: low
It: IQ
A: Adenoma sebaceum

Pointed oval

> 3 is significant

27) CONFETTI MACULE
- Small circular
- Hypo
- Small hypopigmented macule like confetti

37) ADENOMA SEBACEUM
- Minute
- No sebum relation
- Skin-coloured papule on face
Onset - 2-5 yrs of age
Histopath - Angiogibroma.

47 SHAGREEN PATCH / PLAQUE
- Shaggy skin - rough
- Roughened plaques on LS Region
- H/P - collagenoma

57 KOENEN'S TUMOUR
- Periungual fibroma
- At puberty

CONNECTIVE TISSUE DISEASE

LUPUS ERYTHEMATOSIS

Skin
- DLE
  - Discoid lichen-like
  - Periphery active
  - Centre active
  - Nummular

Skin + Systemic
- SLE
- Cerval B
- Cicatricial alopecia
  - Non cicatricial alopecia

DLE:
- Only cicatricial alopecia

Photodermatosis
- Autoimmune
  - Hair follicle disorder
Scalp Hair / Facial Hair: 

\[ \text{stem cell} \rightarrow \text{Permanent Scarring Alopecia} \]

\[ \text{not hair stem cell} \]

\( L N \rightarrow T \text{cells} \)

C/F: Discoid plaque

- Hyperpigmented Border
- Telangiectasia on plaque
- Atrophy in plaque

Follicular Keratosis

SCALE

Follicular keratosis

CARPET TAC SCALE
SLE

SLE pts: sometimes have thin, fragile, easily broken hair

[LUPUS HAIR]

SCLERODERMA

excess collagen

unpinchable, hard bound down skin

pulled down collagen

only skin

RIPHEA

M/c site: Thunk

Linear morphea on scalp causes linear areas of cicatricial hair loss, resembling cut 'n' sickle.

en - coup - d - sabre

a cut 'n' sickle

CREST SYNDROME

C = calcinosi
R = Raynaud's phenomenon
E = esophageal dysmotility
S = sclerodactyly
T = Telangiectasia
**SYSTEMIC SCLEROSIS**

**CRITERIA for Diffuse**

**MAJOR**

**Essential**
- Scleroderma proximal to the metacarpophalangeal Jt.

**MINOR**

2 out of 3
- Scleral deposit
- Digital pitted scars
- Bibasilar pulmonary fibrosis

**SKIN FEATURES**

1) Mask like face due to facial tightening
2) Purse string mouth / microstomia
3) Perioral Rhagades
4) Frequent Raynaud's phenomenon
5) Salt & Pepper Pigmentation

**III DERMATO MYOSITIS**

Skin proximal M/s weakness

**A**
- Lilac / Purplé Colour

around Eye in shawl area
- Heliotrope RASH
- Gottron's Papule
   b. Rough Hand due to palmare Hyperkeratosis

**NAIL DISORDER**

1) **PITTING DISEASE.**
   Due to involvement of proximal nail matrix.

- **RIDL**
  - Random
  - Irregular
  - Deep
  - Large

- **Psoriasis**

- **Superficial**
  - Regular
  - Geometric

- **Coarse Large Pits**

- **Alopecia areata**

- **Eczema**

H/c Sign of nail psoriasis.

2) **NAIL PSORIASIS**

- Pitting is the H/c sign but not specific to psoriasis.
- Having pits → 1 chance of getting Jt involvement in psoriasis pt.

- Salmon Patch/Oil Drop Sign: (Pathognomonic of psoriasis)
  - Red Jaunt
3) Subungual hyperkeratosis
4) Onycholysis
5) Splinter hemorrhage

3) NAIL LICHEN PLANUS
Longitudinal Ridge (JIPMER)
Tented nail
Thinning of nail plate
Dorsal Pterygium (extension of proximal nail fold to nail bed)

20 Nail Dystrophy (Trachyonychia) JIPMER
- Sand paper nail
  ↓
  Also seen in psoriasis
  - alopecia areata

Inverse

4) INVERSE (VENTRAL) PTERYGium
Skin from nail bed fuse to the undersurface of nail bed seen in scleroderma.

5) HALF & HALF NAIL
Seen in Chronic Renal Failure
Reversible on hemodialysis

due to anemia

Proximal 50% white
↓
Dermal 50% Brown

due to melanin deposits on nail bed
↓
due to TSH secretion
in CRF
**BEAU'S LINE**
Horizontal groove on the nail plate.
Due to temporary suppression of nail growth due to past fever or local nail fold trauma.
No Rx Required.

**NEUTROPHILIC DERMATOSIS**
Neutrophilic accumulation in dermis.

- Molecular mimicry
- Ag e.g. Strept. throat
- Neutrophils

**Rx = Antigen Removal + Anti-Neutrophilic Drug**

1. Dapsone
2. Colchicine
3. Steroids - oral

**Dermatitis Herpetiformis → Doc = Dapsone**
Behcet Syndrome
Sweet's Syndrome
Pyoderma Gangrenosum

**Pyoderma Gangrenosum**
No pyoderma, no gangrene.
Present as: Very painful leg ulcer to purple
Hargen around it
Ulcer → undermined
Associated with
- IBD
- Haematological malignancy

**SWEET SYNDROME** / ACUTE FEBRILE NEUTROPHILIC DERMATOSIS.

Presents acutely as red, edematous, painful plaque on extremities; fever; it pains.

Resembles cellulitis.

**Doc:** Steroids.

Associated with
- *Strepto (H/L*)
- others — AML, Dose, 🇨 🇹 🇵 🇫

**Histopath:**
Plenty of neutrophils on dermis

○ **BEHÇET’S DISEASE**

**MAJOR**

<table>
<thead>
<tr>
<th>Recurrent aphthous ulcers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superficial, round/oral, Painful &amp; a red margin around it</td>
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</table>

**MINOR (any 2)**

<table>
<thead>
<tr>
<th>Recurrent genital aphthous ulcer</th>
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<tbody>
<tr>
<td>Eye lesions (Panuveitis)</td>
</tr>
<tr>
<td>Skin lesions (erythema nodosum, pustules)</td>
</tr>
<tr>
<td>+ Pathergy test</td>
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</tbody>
</table>
PATHERGY TEST:
Inflammatory Papule or Pustule at the site of Intradermal Injec on the forearm (after 48 hr)

1) Behcet's
2) Pyoderma Gangrenosum
3) Sweet's syndrome (Rarely)
4) RA.
5) IBD

CUTANEOUS TB

A) EXOGANOUS TB

1) TB chancre
   "means ulcer"

2) TB verrucose cutis (TBVC)
   cauliflower skin

3) LUPUS VULGARIS
   The type of cutaneous TB in adults.

No previous exposure to TB
(TB naive, patient)

1° TB

Pt. has low immunity to TB
TB chancre
MULTIBACILLARY (MB)
LUPUS VULGARIS Q. AIIMS.

Healing = central scarring
Progressive Lesions
Buttocks

DIAGNOSIS:
1) DIASCOPY
   - Yellow Brown Nodules visible
     (APPLE JELLY NODULES)
   - Also seen in
     Sarcoidosis
     Leishmaniasis

2) SKIN BIOPSY
   Non-caseating tuberculoid Granuloma

Lupus vulgaris: pauci-bacillary

(8) ENDOGENOUS TB
1) SCROFULODERMA - H/t in children
2) PERI-ORIFICAL
   - Drainage sinus
   - Cervical infected
   - LN
**Per oral** - **Per anal ulcer** = **Severe int. TB.**

1. **TUBERCULID**
   - Daughter lesion
   - Mother lesion

*Daughter lesions initiate hypersensitivity in skin causing inflammation also leading to fragmented bacilli in skin can be cultured.*

**Mantoux test is strongly positive in Tuberculid.**

3 **TYPES** (depending on size of daughter lesions)

- **Daughter is very tiny**
  - (micropapule size)
  - Micropapular Tuberculid
  - Or Lichen sclerosum
  - **C/F - Grouped micropapule on trunk**

- **Daughter is small**
  - Papulo-neurotic Tuberculid
  - **H/lp - Perifollicular non-causing TB granuloma**

- **Daughter is Large**
  - Nodular Tuberculid
  - Erythema induratum
  - Bazin's Disease
  - **C/F - Red, tender, nodule on calf & ulcerates**
PANNICULITIS

Vessels can inflame along with panniculitis.

Lobular panniculitis

Septal panniculitis

SEPTAL PANNICULITIS

- Vasculitis
- Erythema Nodosum

LOBULAR PANNICULITIS

- Vasculitis
- Nodular Tuberculoid
- Pancreateg Panniculitis
  (Acute/chronic pancreatitis/cancer)
- Post-surgical panniculitis
- Lupus panniculitis
- Subacute fat necrosis of newborn

* Website: http://mbbshelp.com
* WhatsApp: http://mbbshelp.com/whatsapp
ERYTHEMO NODOSUM

Red, tender nodule on shin & never ulcerate

CAUSES

NO - No cause, Neutrophila Dermatose
(Behet's Disease, Sweet Syndrome)

D - Drugs (codide, bromide, sulfonamides)

O - OCP

S - Sarcoidosis

U - Ulcerative Colitis (also Crohn's)

M - Microbes (strepto)
    Infection, Malignancy (Hematological)

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>EN</th>
<th>ENL</th>
<th>SWEETS SYNDROME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutrophil</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Histioyte</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Vasculitis</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

Rx of EN:

1) Bed Rest
2) Neutrophil Removal Drugs (steroids, diphene, colchicine)
3) Removal of cause
HANSENS DISEASE

M. Leprae
- grows in cool areas
- skin n/v (superficial)
  Neur 1st then skin.
  (thicken the n/v)
- Neur involved but doens't involve skin = Pure neural Leprosy

H/c peripheral n/v involved: Ulnar
  LL = Post Tibial
H/c deformity = CLAW HAND
H/c cranial n/v = FACIAL N/V
  → Lagophthalmos

Biopsy taken from radial cut > sural n/v
Commonest Hansen in India = BT HANSEN
Commonest Int. Organ involved = Testis (being it a low temp)
Organ never involved in HANSEN = CNS → O

Earliest sensation lost = Hot → cold differentiation
  Cold > Hot > light touch > pain > crude touch
Sensation never lost = Proprioception, vibration
RIDDLE JOPLING CLASSIFICATION

Based on:
1) Clinical
2) Bacteriological (sclt skin smear - sss)
3) Histological (skin biopsy)
4) Immunological (lepromin testing)

If there are >10,000 bacilli/gm of skin → MULTIBACILLARY HANSEN

If there is <10,000 bacilli/gm of skin → PAUCIBACILLARY HANSEN:

TT → Immunologically stable

TT  
BB  
PB

BT

BB  
Downgrading [e.g. out Rx]

BL  
LL

TT → Immunologically stable
TT Hansen on Biopsy shows Perivascular, Periodenal Neural Granuloma

LL on Biopsy shows Foam cell, Virchow cell, Leptra cell. (Dermal macrophage free of leprosy Bacilli)

Special Stain

Zn Stain

2) Fite Stain. Image

[Blue background]
[Red Bacilli]

Entry of Organism

Sent to LN

Th1 (Tcells)

Th2 (Bcells)

Toward TT

Toward LL.
Hypersensitivity Toward TT Side = TYPE IV
Present as Neuritis
+ Nerve Abscess
↓
also called TYPE 1 LEPRA RXN of N/V
Rx for Neuritis ⇒ MDT + Oral Steroids.
Rx for N/V Abscess ⇒ I & D.

Hypersensitivity toward LL Side = TYPE III
Present as Vasculitis
Called as TYPE 2 LEPRA RXN. or Erythema Nodosum Leprae.
Effect of MDT on:

\[ TT \quad BT \quad BB \quad BL \quad BBL \]

- T cell
- hyper
- Type I
- Leprosy
- T cell
- hyper
- Type I
- Leprosy
- T cell
- hyper
- Type I
- Leprosy
- B cell
- hyper
- Type 2
- Leprosy
- B cell
- hyper
- Type 2
- Leprosy

TT HANSEN

Anaesthesia

Hypo pigmentation  \[ \text{NO SWEAT} \]

TB granuloma  \[ \text{TB granuloma} \]

Damage  \[ \text{S/A/N} \rightarrow \text{SENSORY/AUTONOMIC/MOTOR} \]

Melanocyte  \[ \text{XX/XX} \rightarrow \text{NO SWEAT} \]

\[ \Rightarrow 1 \text{ Thickened N/V +1 bossed lesion (saucer morphology)} \]

INDETERMINANT HANSEN

Presents as Hypopigmented patch on cheek in children.

\[ \text{D/D of Hypopigmented patch on cheek in child} \]

Diffuse Scaling  \[ \text{Non scaly, atrophic from endemic area} \]

Pityriasis alba  \[ \text{Indeterminate Hansen} \]
Histopath:
- Perivascular or Periadnexal Lymphocytes
- Bacillus not seen
- Few thickened n/ks

**ORIGINAL BT**

\[ \text{on MDT} \]

- Slow upgrade
- No clinical
- Type I

**BB HANSEN**

- Sharp
- Well-defined
- Ill-defined

\[ (\text{10-30 lesions}) \]

**FATE**
- Most pts. upgrade
- Some downgrade

\[ \text{TT} \]

\[ \text{IH} \]

\[ \text{N} \]
Granuloma size ↓, hence
Sensation improve
Sweating ↑
Dry lesions become shiny lesions
Hypopigmentation ↓
Symmetry of patches ↓
Patchies thin no. but ↓ in size

BL HANSEN
Many, almost symmetrical lesions - almost symmetrical
Inverted saucer/punched out lesions
Uncomfortable lesions

LL HANSEN
Diffuse infiltration of skin - Peripheral N/ve
1) Sensation
N) Sweating, ill defined borders
2) Ear lobe infiltration
3) Lateral Madarosis
4) Gynecomastia due to testicular involvement
5) Saddle nose - collapse of bridge of nose
6) Nasal septal perforation
7) B/L lagophthalmosc - due to facial N/v involvement
   Due to - [corneal ulcer]
8) Osteoporosis - Sttching anaesthesia - due to peripheral neuropathy
BIL symmetrical niv involvement

Thickening of niv in LL is due to invasion.

EARLY SIGNS:
- Nasal stuffiness
- Dyspnea (JIPMER 2014)
- Leg oedema

NODULAR LL = LEONINE

Painless nodules due to unequal invasion of by bacilli

SITE OF BIOPSY:

NON-NODULAR LL = LUCIO

Means Beautiful (Mexican)

Also called: BEAUTIFUL LEPROSY (Lepro Bonito)

WRINKLE LESS/SHINY SKIN, due to subcutaneous invasion by bacilli then stretchy skin

LUCIO REACTION:
- Ischaemic ulcers

Severe vasculitis Bl. vessel becoming thrombosed

HISTOID LEPROSY:
- Type of LL is dapsone resistance
- Skin along & papule nodules
ERYTHEMA NODOSUM - LEPROSY

Tender nodule on extremities (New Lesion)

SYSTEMIC FEATURES

- Fever
- It. Pain
- Uveitis
- Glu.
- Orchitis
- Hepatitis

Cytokine Involved in ENL = TNFα

Hence TNFα Inhibitors (Thalidomide) is given in ENL

<table>
<thead>
<tr>
<th>TYPE 1</th>
<th>TYPE 2</th>
</tr>
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<tbody>
<tr>
<td>NSAIDS</td>
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</tr>
<tr>
<td>Oral Steroid - Doc</td>
<td>Oral Steroid - Doc</td>
</tr>
<tr>
<td>Chloroquine</td>
<td>Chloroquine</td>
</tr>
<tr>
<td>Agathiopeine</td>
<td>Agathiopeine</td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>Thalidomide</td>
</tr>
<tr>
<td>Clofazimine</td>
<td>Clofazimine</td>
</tr>
</tbody>
</table>

RECURRENT ENL

Step 1 - Prednisolone 3 months + Clofazimine

1 mg/kg/day

100 mg TDS - 3 months

Step 2 - only Clofazimine

100 mg BD - 3 months

Step 3 - Clofazimine

100 mg OD - 3 months
HISTOPATH OF LL

GRENZ zone
zone of sparing in upper dermis (out foam cells) you may be a zone of better immunity in the dermis.

Slit Skin Smear

Sites: Skin lesions Ear Lobe, Best site

3 types of staining pattern

<table>
<thead>
<tr>
<th>SOLID</th>
<th>FRAGMENTED</th>
<th>GRAINULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S)</td>
<td>(F)</td>
<td>(G)</td>
</tr>
</tbody>
</table>

Living Dead

S + F + G = Bacteriological Index (BI)
S = Morphological Index (MI)
BI remains +ve even after Rx [↓ by 1+ every year on Rx]
BI is measured from 1+ to 6+

Eg. BI = 3+ before MDT

Rx<br>
1. Rx eg per 1 yr<br>
   ↓<br>
   2+ stop Rx<br>
   ↓<br>
   1+ automatically after 1 yr.<br>
   ↓<br>
   0
MI becomes -ve after Rx

RELAPSE

BT ↑ by 2+ over the previous value
clinically by new skin lesions & new thickened n/us

SSS is +ve if u have more than 10,000 bacilli/gm
(Multibacillary) of tissue

SSS is -ve if less than 10,000 bacilli/gm of tissue
(Paucibacillary)

SS is -ve in these in-

TT
BT
Indeterminate Hansen
Pure neural Hansen

SS is +ve in-

BT
BB
BL
LL

LEPROMIN SKIN TEST

Intradermal test for immune status in leprosy

Not a diagnostic test but a prognostic test

Website: http://mbbshelp.com
WhatsApp: http://mbbshelp.com/whatsapp
Reading of Leptospirosis

1) Early Response
   wheat at 48 hrs
   FERNANDEZ Rxn

2) Late Response at 4wk
   (MITSUDA Rxn)
   (Better indicator of CMI)

---

**SLIDE 1**

TREATMENT

- Thickened Nerves
  - 1
  - >1
  - PB
  - MB

- Patches
  - 1-5
  - >5
  - PB
  - MB

- SSS
  - Negative
  - Positive
  - PB
  - MB

---

From a programme perspective only clinical A is enough to classify PB vs MB.

ROM = Rifampicin + Doxycycline + Henodydine & discontinued

**SLIDE 2**

PB PACKET = GREEN

1. R 300mg
2. R 300mg
3. Dapsone D 300mg

5 supervised monthly

100mg

D Daily unsupervised

Finish 6 pack max in 9 months

Website: http://mbbshelp.com

WhatsApp: http://mbbshelp.com/whatsapp
SLIBE - 3  MB - Red

12 packets max in 18 months.
Each pack = 28 Days

- Lesions often remain the same even after completion of MDT.

2nd Line Drugs

1) Quinolones
   - Moxi, Spar, Ofloxacin

2) Clarithromycin

3) Minocycline

4) Rifapentine

S/E of Clofazimine

- Pigmentation - M/c
- Ichthyosis - (Dry Skin)
- Intestinal obstruction
S/E of Dapsone

1) Hemolytic anaemia
2) Peripheral neuropathy
3) **Dapsone Syndrome (5th Week Syndrome)**
    - Skin Rash
    - Hepatitus after 5 weeks of taking Dapsone

STD

GENITAL ULCER DISEASES

**1) Syphilis**

*Treponema pallidum* - Spirochete & "cork-screw" motility

- **Spiral, motile**
- Enters genitiles
- (1st chancre) I.P. - 9-90 days
  - Ulcer

**1st Chancre**
- (Hard - Hard chancre)
  - Painless
- I.P. = 9-90 days
  - Button like Q
  - Round / oval
  - Single
  - Regular edges

extragenital chancre = M/C site = **LIP**
Ioe in 1st chancre

- Smear from ulcer
  - followed by
  - Dark ground illumination (DGI)
  - Most sensitive & most specific test in 1st syphilis

DGI can't be done from extragenital lesion chancre due to salivary contamination & commensal Treponemes.

SLIDES

Blood test in 1st chancre

- at 3 wks: EIA (enzyme immuno assay)
  - most sensitive screening test

- at 3 wks: FTA-Abs → outdated.

- 4 wks: VDRL

- 4-6 wks: TPPA/TPHA

Ing. L.N. → move into blood

- enlarged
- painless
- rubbery
- Shotty

(2nd syphilis)

IOE = VDRL
1° chancre; self heals

SLIDE-6

Rash
Non-itchy
M/e sign
Great imitator
No blister
Papules/plaques, scales
Palm, sole involved

Condyloma Lata
(Flat, moist plaques - anal/genital)

2° Syphilis
Mucosal involvement
(snail track ulcers)

Gen. Lymphadenopathy

Deep Dermal Tenderness/ Buske - Ellendorf sign
On deep pressure & a blunt object on palm, sole
Lesson - there is deep tenderness

No pain

No pain

Deep pressure on palm, sole
cause tenderness

End arteritis
Obliterans

Condyloma Lata is full of Spirochete
Hence DGI sample can be taken from it
Non-scarring alopecia - also seen in:
- Alopecia areata
- Trichotillomania

Syphilis:
- Spirochetes stay in blood
- Become inactive
  (Pts - asymptomatic)

Early Latent

Latent Syphilis

Late Latent

Spirochetes go into deep tissue

Tertiary Syphilis

3 types:
- CNS
- Cardiovascular
- Blood

Occ of neurosyphilis = CSF VDRL

Slide T

<table>
<thead>
<tr>
<th>Early Syphilis</th>
<th>10</th>
<th>20 Early Latent</th>
<th>Inj Benzathine Pencillin 2.4MU IM Single dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Syphilis</td>
<td>Late Latent</td>
<td>30</td>
<td>Inj Benzathine Pencillin 2.4MU IM 3 doses at weekly intervals Neurosyphilis - I.v. aqueous crystalline penicillin</td>
</tr>
</tbody>
</table>
**JARISCH-HERXHEIMER Rxn**

Inflammation, fever, 7 of lesions after Rx in syphilis.

Rx for Penicillin Allergy:

Doxycycline (14 days - early syphilis)

Incompliance → 28 days - late syphilis

- Chancre (reduction)
- Recurrent syphilis
- Relapsing

Rx for Pregnancy:

- Same as in non-pregnant pts.
- If allergic to penicillin → desensitize

VDRL - used to monitor response to therapy.

- titre reduces 4 fold in 6 months of Rx.
  - 1:64
  - ↓ Rx
  - 1:16 in 6 months

Specific Treponomal Test (TPPA, TPMA) remain true even after therapy (often lifelong).

So, can't be used for prognostic purpose.
### Congenital Syphilis

**Early**
- (1st 2 yr)
- Like adult 2° syphilis

**Late**
- (>2 yr)
- Like adult 3° syphilis

---

**SLIDE-8**

<table>
<thead>
<tr>
<th>Early Cong.</th>
<th>Late Cong.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Shingles</strong> (Rhinitis)</td>
<td><strong>1) Clutton's Joint - Painless knee swelling</strong></td>
</tr>
<tr>
<td>Leastest + M/c sign</td>
<td></td>
</tr>
<tr>
<td><strong>2) Blisters</strong></td>
<td><strong>2) Sabre Teela (Antebrae) (Bowing of teela)</strong></td>
</tr>
<tr>
<td>(Syphilitic pemphigus)</td>
<td></td>
</tr>
<tr>
<td><strong>3) Epiphysitis</strong></td>
<td><strong>3) Olympian's Brow - Frontal bossing</strong></td>
</tr>
<tr>
<td><strong>4) Osteochondritis causae</strong></td>
<td><strong>4) Saddle nose</strong></td>
</tr>
<tr>
<td>Pseudoparalysis</td>
<td></td>
</tr>
<tr>
<td><strong>4) Condyloma Lata</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**Hutchinson Triad of Late Cong. Syphilis**

- *Intestinal Keratitis*
- *8° n/v Odeme*
- Hutchinson Tooth
Mother

Baby

↑

Ab

VDRL +

placenta

VDRL +

1:16 < 1:64 = VDRL +ve in Baby at birth.

But if titre is more than mother.

Baby has syphilis.

Δ = VDRL of Baby < times > mother's titre

DRI from nasal secretions, blister fluid

III. Chancreoid

H. Ducreyi - extracellular gram -ve organism.

I.P. = 3-10 days.

Chancreoid

chancre like.

⇒ completely unlike chancre.

SLIDE-9

Ing - LN

soft chancre

3-10 days

painful

Multiple

irregular edges

Bleeds on touch

Inflammation

Bubo (ipsilateral, may suppurate)
In chancroid, kissing ulcers are seen due to autoinoculation.

\[ \Delta = \]

1. Gram stain on smear \( \rightarrow \) Gram -ve

- School of fish
- Rail head track
- Extracellular

27 Intradermal test - ETA test

Outdated

37 PCR on skin biopsy or smear.

**Rx -**

- Agithronyx 1 gm stat
  - or

  - Inj cephalaxone 250 mg I.M. stat

- **Donovanosis**

  - Intracellular

  - *Calymmatobacterium granulomatis* (Klebsella granulomatis)

  - I.P. = 8-80 days

  - Hypertrophic granulation tissue on ulcer floor

  - Beefy red colour

  - Bleed on touch

  - Painless
**SLIDE - 10**

- Granuloma - pseudobulb
  - Inq. L.N.
  - Granuloma
  - Inguenale

**Crush Smear.**

- Glemsa Stain

- Histoocyte
  - Donovan Bodies
  - Closed Safety Pen
  - Arrangement
  - Atims Nov 15, May 2017

- Organium intracellular

- Rx: Azithromycin 1gm/week (preferred)

- Doxy 100 mg BD

**IV LGV**

- Chlamydia Trachomatis
  - I.P. - 10 - 30 days

**SLIDE - 11**

- Inflammed Bubo

- Never seen / transient

- Chlamydia Trachomatis
  - 1st stage (genital)

- 2nd stage (inguinal)

- Inflammed Bubo
Bubos

\[ U/L \quad \xrightarrow{\text{ing}} \quad B/L \]

\[ \text{Femoral Bubo} \rightarrow \text{Inguinal Ligament (Groove)} \downarrow \]

Also seen in

a) Mondor's Disease
b) Eosinophilic Fasciitis

3rd Stage of LGV

Elephantiasis due to Lymph oedema

Rams Horn Penis / Saxophone
S shaped penile deformity

Lymphangectasia

Bubbles of lymph on skin surface

Lymphorrhoea

Oozing of lymph

Esthiomene

(Lymphangectasia + overlying ulceration)

\[ \Delta \) of LGV = \) Free test \rightarrow \) outdated

2) PCR for Chlamydia by NAAT

Best Test

Most commonly done 3) CFT (Complement fixation Test)

4) MIF (Microimmuno fluorescent test)
ANORECTAL FEATURES

1. Fissure
2. Fistula
3. Sinuses
4. Stricture

Rx of LGV

- Doxy 100 mg BD for 21 days

V HERPES GENITALIS

HSV - 2 > HSV - 1.

- Recurrent Blister + Ulcers (Painful, grouped)
- along = painful inguinal bubo always recurrent

Rx = Acyclovir group of Drugs.

URETHRAL DISCHARGE

Pathology = URETHRITIS

GONOCOCCUS

Gram -ve intracellular diplococcus

♂

- often symptomatic
- urethritis (urethral discharge)

♀

- often asymptomatic (carrier)
- cervical discharge

In cervix
Presumptive Partner Treatment (PPT) is done in STDs to prevent recurrence in index STD pt.

SLIDE 12

**Gonococcal**
N. gonorrhoeae

- **IF 2-8 days**
- Thick purulent urethral D/C

- 
  - Rx
  - I/M cefixime 250mg IM stat
  - Azithromycin 1gm stat

- Tab cefixime 400mg stat
  - Azithromycin 1gm stat

**NON-Gonococcal**
Chlamydia / Trichomonas / Mycoplasma / Ureaplasma

- **IF 1-3 weeks**
- Then mucopurulent D/C

- Rx
  - Tab. Azithromycin 1gm stat (preferred)
  - Doxy 100mg BD for 7 days

**Syndromic Approaches**

Urethral Discharge

- Gonorrhoea
  - Cefixime
  - Grey Packet

- Chlamydia
  - Azithromycin + Cefixime

- NACO Kit-1
  - Azithro
  - Cefixime
**VAGINAL DISCHARGE**

- **CANDIDA**
  - White, creamy minimal D/c
  - Itching

- **TRICHOMONIASIS**
  - Green, frothy D/c
  - Profuse D/c
  - Strawberry Ex
  - Itching

- **BACTERIAL VAGINOSIS**
  - Fouled smelling D/c
  - H/c cause
  - No Itch
  - No Inflammation

**Candida** → Tab. FLUCONAZOLE 150mg stat

**Trichomonas** → Tab METRONIDAZOLE 2g stat

**Gardénella** → Tab Tinidazole 2g stat

or Tab Secnidazole 2g stat

**NACO KIT-2**

**SECNIDAZOLE** + **FLUCONAZOLE**

**green packet**

**CERVICAL D/c**

- **CONORRHOEA**
- **CHLAMYDIA**
  - **GREY KIT**

- **grey**

**green kit (for vaginal D/c)**

**Speculum Exam**
**BACTERIAL VAGINOSIS**

- **GARDENELLA VAGINALIS**
- Anaerobic Bacteria (*Bacteroides, Peptococcus*)
- Mycoplasma

**AMSEL CRITERIA**

1. Thin homogeneous white adherent *D/c*
2. Vaginal fluid *pH* > 4.5
3. Fishy amine odour (*WHIFF TEST*)
4. Clue cells >20%

Clue cells on wet mount / Gram.

Organism epithelial cell

![Add KOH]

Amine / Fishy odour (*WHIFF test*)
INGUINAL BUBO

CHANCROID → LGV

↓

AZITHRO 1g stat + DOXY (100) BD for 21 days

BLACK PACKET

GENITAL ULCER

VESICLES

HERPES

(+)

Ayclover [RED KIT]

SYPH

LGV

CHAN

DOXY

BENZ. PENICILLIN

WHITE KIT

ALLERGIC (DOXY) + AZITHRO 14 days

BLUE KIT

NACO KIT 7

DOXY 100mg BD for 21 days

AZITHRO 1gm stat
No partner T/T required in Q

Gardennella
Herpes
Candida [if partner is symptomatic at same time Rx partner]

Hc: World (WHO: 2015)

STD (overall) - HSV2
- Viral - HSV2 > HSV1
- Bacterial - Chlamydia > Gonorrhoea
- Protozoal - Trichomonas
PSORIASIS

- Autoimmune Disease
- TH1 & TH17 mediated inflammation (T cell)
- IL-12, IL-17, IL-23 - are secreted by T cells, initiating inflammation

- Associated with HLA-CW6

Rx = Immunosuppressives [ systemic steroid & C/I]

\[ \text{STABLE} \]
\[ \downarrow \]
\[ \text{UNSTABLE} \]
- sudden many new lesions
- pustular psoriasis
- erythrodermic psoriasis

*Exacerbating Factors:
- Sudden withdrawal of systemic steroids
- Infected - streptococcus
- Drugs - (β blockers, Lithium, Chloroquine, NSAIDs, ACEI)
I> Ps. VULGARIS
   Halotype
   on extensor: silvery scales
   itchy
   chronic plaque form - M/C

II> GUTTATE: Ps.
   Raindrop
   associated with Streptococcal Pharyngitis
   Rx - includes antibiotic against strepto

III> ERYTHRODERMIC Ps. / EXFOLIATIVE DERMATITIS
   Red
   Scaly
   C/F - Red scaly plaques all over body (75% of BSA)
   Rx - 1st line = Methotrexate
   2nd " = ACITRETIN

IV> FLEXURAL PSORIASIS - (Inverse)
   No scaling
   Erythematosus shiny plaque in skin folds
   (Inframammary area, groin) as scales get crusted

V> SEBO PSORIASIS:
   Silvery plaques on scalp
   Thick scales
Seborrhoeic Dermatitis (SD)
- caused by MALASSEZIA
- yellow greasy scales
- thin scales

VII) GEN. PUSTULAR PSORIASIS (GPP)

If diffuse pus all over body
Severe inflammation
Fever
"Sheet of pus"
"Lake of pus"

separate pustules on periphery

all pustules fuse together in centre to form "sheet of pus"

GPP

Non- Preg → →
VON- ZUMBUSCH
Type
Rx - 1st Line = Acitretin
2nd Line = Mtx

IMPETIGO HERPETIFORMIS

↓

Doc = Syst. Steroids

If Φ is also diabetic
↓

Doc = Cyclosporin
### Psoriatic Arthritis

- 5-30% of pts.
- HLA B27, HLA B7
- Nail psoriasis has a risk of developing arthritis
- Dactylitis, enthesitis
- Usually skin involvement precedes joint involvement
  - Classical joint involvement = DIP.
  - DOC: Methotrexate. (Except arthritis mutilans)
  - Etanercept

#### SLIDE-14

<table>
<thead>
<tr>
<th>%</th>
<th>Rx</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10%</td>
<td>1st Line</td>
</tr>
<tr>
<td></td>
<td>Topical steroids</td>
</tr>
<tr>
<td></td>
<td>Topical calcipotriol (Vit D derivative)</td>
</tr>
<tr>
<td></td>
<td>L Doc</td>
</tr>
<tr>
<td>10-30%</td>
<td>1st Line</td>
</tr>
<tr>
<td></td>
<td>Narrow band UVB</td>
</tr>
<tr>
<td></td>
<td>Methotrexate</td>
</tr>
<tr>
<td></td>
<td>Accretion</td>
</tr>
<tr>
<td></td>
<td>2nd Line</td>
</tr>
<tr>
<td></td>
<td>PUVA</td>
</tr>
<tr>
<td></td>
<td>Cyclosporin</td>
</tr>
<tr>
<td></td>
<td>Fumaric acid esters</td>
</tr>
<tr>
<td></td>
<td>Biologics</td>
</tr>
<tr>
<td></td>
<td>Enbrel, Infliximab, Adalimumab</td>
</tr>
<tr>
<td>&gt;30%</td>
<td>1st Line</td>
</tr>
<tr>
<td></td>
<td>Methotrexate</td>
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<td></td>
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</tr>
</tbody>
</table>
OLD REGIMENS

INGRAM

UV

\[ \rightarrow \]

ANTHRALIN

GOECKERMAN

UV

\[ \rightarrow \]

COALTAR

WORONOFF'S RING

- Hypopigmented ring around psoriasis lesions indicating healing of lesions

- Due to inhibition of PG synthesis \[ \rightarrow \] resulting

- Vasoconstriction

REITER'S DISEASE

REACTIVE

M/e cause

Entry of Salmonella

Shigella

Yersinia

Campylobacter

Urethritis

Entry of Chlamydia through sexual route

3 common symptoms afterward:

ARTHRITIS

- In cutaneous (large) joints

- HLA-B27

- Enthesitis, dactyliitis

RED EYE

CONJUNCTIVITIS

SKIN LESIONS

Circinate Balanitis

BLENORRHAGIA

Keratoderma

(atrophic, dry)
PITYRIASIS RUBRA PILARIS

1. Skin
   - Follicular
     - Keratosis
     - Very sharp on palpation
   - Red/orange colour around hair
   - Red hair

2. Skin between follicle = Island of Sparring
   - Palmoplantar Hyperkeratosis
   - Erythroderma
   - Keratotic spo sandal - thick plantar keratin appearing like sandal of keratin.

   LICHEN PLANUS
   - Autoimmune disease
   - 5Ps
     - Purple
     - Polygonal
     - Pruritic
     - Plane-topped

   No scale
   - Flexural areas (H/c - wrist flexure)
   - HCV, HBV
usually healing = hyperpigmentation.

- mineral oil
- white cross - cross marks
  (Wickham's striae)
  ↓
  is due to HYPERGRANULOSIS

TYPES OF LP

17 ORAL LP
- White criss cross (Lacy/Reticular) pattern
- Buccal mucosa, tongue
  - Associated to Dental Amalgam
    - contains Mercury
  - B/L U/L or B/L
  - Have symptoms
    [Leukoplakia & U/L, not cross - cross, asymptomatic]

* Risk of malignant 20% in oral LP
Lacy pattern doesn't have risk.
Ulcerative Oral LP and LP on tongue have risk of 1-5%

27 ACUTE WIDESPREAD LP
- Sudden eruption of multiple lesions
  - Doc - systemic steroids
3. **Lichen Planus Pigmentosus**

Pigmentation in sun exposed areas (No itching)

47. **LP PILARIS / PSEUDOPELADE**

- Hair Telogen
  - Bulge (stem cells)
    - Bulge is Ag
      - Scarring alopecia

  - Patchy scarring alopecia
  - Perifollicular blue-grey macules
    - "Foot print in snow appearance"

  Perifollicular blue-grey macule

57. **Actinic LP**

- Sun induced LP
- Itch
  - Hyperpigmented macule surrounded by a hypopigmented ring on sun exposed areas

67. **Hypertrophic LP**

Hypertrophic plaques on lower legs
  - (thick, flat, elevated)
Rx of LP

Oral LP

LP Pigmentosus → Chronic DC

LP Pilare

→ Localised LP → Topical Rx
  ↓ Steroids:
  Calcipotriol
  Tacrolimus

→ Generalised LP → Systemic Rx
  → Steroids:
  Non-Steroidal Immunosuppressives
  Cyclosporine
  Mycophenolate
  Methotrexate
  Azathioprine

→ For hypertrophic LP → Acitretin (Keratolytic)
ALOPECIA AREATA

autoimmune as of hair
Ag: melanin in hair bulb.

Bulge - 0

T cells

destroy bulb

patchy alopecia

H/c: scalp. => NON-SCARRING ALOPECIA

always sparing of white/gray hair in alopecia patch.

Rx: LOCALISED PATCH

\[ \rightarrow \text{Topical steroid} \]

\[ \rightarrow \text{Minoxidil} \]

\[ \rightarrow \text{Intralesional steroids are most effective} \]

POOR PROGNOSTIC FACTORS

1) OPHIASIS

\[ \rightarrow \text{alopecia at the hair line margin} \]

2) ALOPECIA TOTALIS

\[ \rightarrow \text{loss of complete hair of scalp} \]

3) ALOPECIA UNIVERSALIS

\[ \rightarrow \text{loss of total body hair} \]

4) EXCLAMATION HAIR PHTHROPHOMA

[ alopecia areata ]
5) PRESENCE OF ATOPY

6) NAIL CHANGES (Regular pitting)

TOTALIS/ UNIVERSALIS

Contact + Sensitive

Di Nitro Chloro Benzene
(DNCB)

Di Phen Lyporne
(DPC)

Squaric Acid

Di Butyl Ester
(SADBE)

TRICHTILLOMANIA

AIIMS MAY 2017

→ Obsessive Compulsive Disorder of hair pulling

→ Patchy Hair Loss 2 haers of varying length

in patch more on vertex  Dominant Hand side

→ TONSURE/ FRAIR TUCK SIGN:

Loss of vertex sparing of side

→ HISTOPATH: follicular Hapel
LICHEN NITIDUS

AIIMS May 15

- Pin point papule on dorsum of hand and genital
- Asymptomatic
- Self resolving

**Histopath**

Claw & Ball appearance

Clutching the ball

Rete go down, curve inwards like a claw.

Lymphocytes look like Ball
FUNGAL DISEASES

» PITYRIASIS VERSICOLOR

Powdery various color scale

caused by Malassezia furfur

Now Malassezia globosa

Both are commensal around hair follicle in the seborrheic areas

↓

Chest

Back

Face

$ Overgrowth of Malassezia

↓

Release Azelaic Acid [Tyrosinase Inhibitor]

↓

Perifollicular Hypopigmentation

↓

Later fuse to form large patches [asymptomatic]

Sometimes other colors [Brown, Red, Yellow] may also be seen

SCRATCH SIGN-

Scratching of lesions make powdery scale prominent in the scratch line.
Δ -
  Staining
  Stain + KOH
  ↓
  Spaghettis - MEAT BALL or
  BANANA + GRAPES appearance Q.

Heat Ball
  - Spaghettis

Rx - 1) Oral + topical Azole group of drugs
  2) Topical Selenium sulphide
  3) Oral Griseofulvin/oral Terbinafine don't work

* Organism is killed immediately but pigmentation problem takes longer (4-8 wks) to resolve.

27 SEBORRHEIC DERMATITIS (SD)
  - Malassezia overgrowth & itching + yellow greasy scales in seborrheic areas.
  - SD in infants = CRADLE CAP
  - Extensive SD = HIV
    Parkinson's Disease

Rx - Similar to pityriasis versicolor
3) **CANDIDIASIS**

*Candida albicans (Opportunist Fungi)*

\[ \downarrow \]

- DM
- Mucor
- Immunosupression

**TYPES**

a) **ORAL THRUSH**

\[ \downarrow \]

White creamy/white curdy plaques in oral cavity can be scraped off (Pseudomembrane)

Leukoplakia cannot be scraped off.

b) **CANDIDAL BALANITIS**

Glans inflammation

Erythematous itchy papule or erosions on glans often in repeated washing with water.

c) **CANDIDAL BALANO-POSTHITIS**

Fissures on prepuce

If recurrent -> s/o uncontrolled DM Q.

d) **CANDIDAL INTERTRIGO**

Moist erythema in folds & satellite lesions
Δ -
- Smear
- Staining with KOH + gram stain to show budding yeast

47 **Tinea**
causes annular lesions

- Itching + peripheral scale

+ scale

central clearing

a/e moist skin

Grain → Tinea cruris (Jack itch, Dhobi itch)

Body → T. corporis

Scalp → T. capitis

Feet → T. pedis / Athlete's Foot

Nail → T. unguium (onychomycosis)

Hand → T. manuum

Steroid modified Tinea → T. incognito
ONYCHOMYCOsis (T. of nail)

- Yellow Discolouration
- Thickening of nail
- Subungual hyperkeratosis

T. PEDIS

3 TYPES

- INTER-DIGITAL
- CHRONIC PLANTAR SCALING (MOCASIN FOOT)
- Trichophyton Rubrum

BULLOUS T. PEDIS

- Trichophyton Mentagrophytes

Tinea caused by Dermatophytes

3 Species

- TRICHO PHYTON
- MICROSPORUM
- EPIDERMOPHYTON

Keratophylic

No

Hair ➤
Skin ➤
Nail ➤

Website: http://mbbshelp.com
WhatsApp: http://mbbshelp.com/whatsapp
SLIDE 15

T. CAPITIS
M/c organism
India - T. violaceum
World - Microsporum Canis
US/UK - T. ToniSaurani
Doc. - Cheseofulven

ALL OTHER TINEAS
M/c organism
T. Rubrum

T. CAPITIS
Easy pluckability of hair in a child
Causes patchy hair loss

ECTO-THRİX
Caused by Microsporum

ENDO-THRİX
Caused by Trichophyton
T. CAPITIS

**NON-INFLAMMATORY**

- **GREY PATCH**
  - Microsporum canis
  - M. audouinii
  - M. ferrugineum

- **BLACK DOT**
  - T. tonsurans
  - T. violaceum

**INFLAMMATORY**

- **KERION**
  - **BOGGY Swelling**
  - Poor prog.
  - T. mentagrophyte
  - M. canis
  - T. verrucosum

- **FAVUS**
  - **yellow scutulum**
  - T. schoenleinii

**SPOROTRICHOSIS**

IoC - Skin Biopsy

\[ H/P \rightarrow \]

\[ \downarrow \]

- **ASTEROID BODLEIA**
  - in dermc

\[ * \]

\[ Rx = Oral ITRACONAZOLE \rightarrow Doc \]

Other \[ \rightarrow KI \]

\[ \rightarrow \text{Amphotericin B.} \]
EUMYCETOMA

Swollen foot → Discharging sinuses
In a farmer walking barefoot.

 TRIAD Q

TUMEFATION (swelling)

SINUSES

GRAINS

SLIDE-12

Swollen foot → Discharging sinuses

B. dermatitidis [Staphylococcus]

Eumycetoma

Madurella mycetomatis

Actinomycetoma

A. Actinomadura madurae M/C

b) Nocardia

o. Streptomyces

BLACK GRAINS

WHITE GRAINS
EUMYCETOMA

Oral Itraconazole
KI.
Amputation.

ACTINOMYCOTIC MYCETOMA

Q. WELSH Regimen → Amikacin +
Rifampicin +
Colchimorazole.

Chromoblastomycosis

Present as cauliflower masses on feet in a barefoot farmer after a thorn prick
Smear shows → naturally yellow spore
Sclerotic Bodies
MURIFORM "
MEDLAR "
COPPER - PENNY

Dole oral ITRACONAZOLE + Sx excision of Mass.
VIRAL DISEASES

HPV

Causes warts

Warts come on non-genital skin

VERUCA

V. VULGARIS PLANA

HPV 2 HPV 3,10 HPV 6,11

Genital skin (STD)

CONDYLOMA ACUMINATA

means pointed

GENITAL WARTS

Imiquimod - Immunomodulator - DOC

Podophyllen Drugs - Anti-mitotics
Podophyllotoxin (purified extract of podophyllen)

Imiquimod is a TLR-7, TLR-8 agonist

hence, activates Langerhans cells
VERRUCA

Burning (cauterization)
Freeze-cryotherapy (liquid N₂)
Acids: Salicylic acid - doc; Trichloroacetic acid

GENITAL WART In Q

Trichloroacetic acid, Cryotherapy (better ans)

PLANTAR WARTS Q

SUPERFICIAL
Mosaic
HPV-2

DEEP
Myrmecia
HPV-1

Q. BUSCHKE-LOWENSTEIN TUMOR

Big cauliflower man
Mutated HPV-6, 11 → creating low grade cauliflower shaped. SCC
Verrucous carcinoma

SEBORRHEIC WART/KERATOSIS

BASAL CELL PAPILLOMA Q

Hünemer Sign of Aging
Due to benign proliferation of keratinocyte
LESSER TREAT. SIGN

Sudden eruption of multiple seborrhoeic keratoses suggest underlying malignancy (Adenocarcinoma of stomach > colon)

2) HUMAN HERPES VIRUS (HHV)

HHV 1 = HSV 1
cause Herpes Labialis
    group blisters on the lip & peri-oral area
    Reactivating => fever [Fever Blister]

HHV 2 = HSV 2
causes Herpes Genitalis

ECZEMA HERPETICUM / KAPOSI’S VARICELLIIFORM ERUP "
Disseminated HSV-1 in an atopic eczema patient who is immunosuppressed & is inoculated by HSV-1 through another patient
Also seen in DARRIER’S DISEASE
p. POLEACEDOI PL.

HHV 3 = Varicella Zoster Virus
1st episode = Varicella [Chicken pox]
Reactivation = Herpes Zoster [shingles]

Varicella present as Vesicles (Dew Drop on Rose Petal)
    Pustules finally crust (non-contagious)
    It has polymorphic, centripetal lesions
After varicella goes → VZV remains hidden in spinal & cranial ganglia. → reactivates along dermatome. (Immunosuppression)

↓

HERPES ZOSTER

Complication of Herpes Zoster

17 Post-herpetic neuralgia (PHN)
Defined as pain even after 4 weeks of resolution of herpes zoster

DOC = IABAPENTIN

Tzanck smear

(SEM)

↓

Break

↓

Fluid

↓

Giemsa

→ PEMPHIGUS

(Both HSV & VZV)

↓

HERPES

(multinucleate giant ce)
PITYRIASIS ROSEA

HHV 7 > HHV 6
Rarely, Drug Induced

1st lesion of disease ⇒ HERALD PATCH
MOTHER PATCH

Annular
Itchy
Peripheral scale (collarette)

THUNK

Rest of lesion come on
straight line meeting at
centre

FIR TREE/CHRISTMAS TREE
pattern. (differentiate from TENA)

→ Self limiting in 4-10 wks
→ Acyclovir shorten disease duration

3) MOLLUSCUM CONTAGIOSUM
caused by MCV (DNA virus)

Inclusion Body

Molluscum Body [Henderson Peterson Body]
Shiny umbilicated, dome-shaped papule

- children, face
- genital molluscum → STD

Rx - same as for warts

PARASITIC DISEASES

I> SCABIES

Caused by female scabies mite

- enters finger web or genital through burrows

Arg. no. of mite on skin = 12

C/F - Itchy papules in adults
- Nocturnal itch
- Facial sparing in adults

Scabies → poor hygiene disease

[WATER WASHED DISEASE]

I.P. = 2-4 weeks → 1st episode

1-2 days later episode
(due to memory Teely)

CIRCLE OF HEBRA

- areas
- umbilicus
- genital
- webs
Rx - For pt + close contact + clothing

Rx for INFANT SCABIES

- Face is involved
- Palm/sole involved
- Papules + vesicles

Rx - Doc → 5% Permethrin - single overnight application

[adults, infants, @]

Other Rx -

1) Benzyl Benzoate 25%
2) Lindane
3) γ Benzene Hexachloride
4) Crustamethon
5) Sulphur

Omal → Ivermectin → 2 doses 14 days apart (200 µg/kg/dose)

NODULAR SCABIES

Hypersensitivity Response to scabies mite

INTRALESIONAL STEROIDS

5% PERMETHRIN → more inflammation

↓ more elevation (nodule)

Seen on genitals
NORWEGIAN / CRUSTED / KERATOTIC

SCABIES

HIV + pts

x NO Response

x (Ag) NO itch

x NO scratch

numerous mites

c/oF - Hyperkeratosis

Rx - Oral Ivermectin + Topical Permethrin

PEDICULOSIS

caused by LOUSE

HEAD LOUSE
Long, slender, louse lay eggs (Nits) on Scalp

Nit → adult

lith

P. CAPITIS

Rx = 1% Permethrin

BODY LOUSE
cause pediculus corporis.

VAGABOND'S
DISEASE

Not on Body, But on clothing

Bite skin

returns back to cloth

Rx = Disinfect of cloth

PUBIC LOUSE / CRAB LOUSE
Short, stocky louse cause PUBIS

Louse bite mark called

Maculae cerulate

Rx = 1% Permethrin

5% Permethrin

Oral Ivermectin
III. **ERYTHEMA CHROMICOM MIGRANS**

Bite by a hard tick (Ixodes) ↓

 Deposits

 *Borrelia burgdorferi* into skin

 red rings around bite

 Target lesion

 Later Pt develops

 **LYME'S DISEASE**

IV. **PKDL**

Post- *Kala-azar* Derma Leishmaniasis

Bite by a sandfly ↓

 Deposits Leishmania

 Cutaneous Leishmaniasis

 CRUSTED ULCER

 Visceral Leishmaniasis

 Fever & hyperpigmentation

 *Kala-azar*

 After many yrs of Kala-azar

 PKDL
PKDL

Hypopig"  Nodular

B forms: resemble Leprosy

H/o past fever in 0 ⇒ suggests PKDL

A of PKDL:
- Crush smear (Giemsa stain) for LD Bodies
- Slit skin smear ( " ) for LD Bodies

Doc - oral MILTEFOSIN

\( \Rightarrow \) INSECT BITE HYPERSENSITIVITY

Excessive immune Response to simple insect bite

→ Lesions on exposed areas.
→ ↑ in rainy season
ECZEMA / DERMATITIS

1) **ATOPIC ECZEMA**

TH2 mediated inflammation
(Bceu)

Δ - Hanifin & Rajka criteria

**SLIDE 18**  **MAJOR CRITERIA** - Any 3 out of 4.

1) **Itching** - Hallmark

2) **Typical Sites**
   
   → **Extensor Dermatitis** [children] 0-2y
   
   → **Flexor Dermatitis** [Adults & children] 2-12y

3) **Personal H/o / Family H/o of atopy**

4) **Chronic Relapsing Course**

Classical flexor involved = antecubital fossa

" Extensor * children = cheek

[HEALIGHT SIGN]

↓

Sparing of nose & 

peri-oral area, peri-orbital area
**Acute Stage**

- Oozing, crusting

**Chronic Stage**

- Lichenification

**Minor Criteria**

1. **Dennie Morgan Fold** -  
   - Antic line crease on lower eyelid.

2. **Pityriasis Alba** -  
   - Hypopigmented patch + fine scaling on cheek.  
     - in children  
     - often recurrent / non-itchy

3. **Peri-orbital Pigmentation**

4. **White Dermographism** -  
   - Vasovagal reaction on scratching.

5. **Plantar Hyperlinearity**

6. **Palmar Hyperlinearity**

7. **Ichthyoses Vulgares (Dry Skin)**

**Rx** -  

- Moisturising cream (lipids)

- Lipid replacement

- **TH2 cell Inhibitors**

- Localised D.

- Generalised Disease
**Localized Disease**
- Steroid
- Calcipotriol
- Tacrolimus

**Generalized Disease**
- Steroid
- Cyclosporine
- Azathioprine
- Phototherapy
- Mycophenolate

II) **CONTACT ECZEMA**

SLIDE-19

$\text{H}_2\text{SO}_4$

Direct destruction

IRRITANT

**Nickel**

1st exposure sensitizes
next exposure causes clinical disease

Inflammatory response

Immune system

ALLERGIC
**IRRITANT**

Not immunological
Due to toxic chemicals
No sensitization required
direct clinical phase
Memory cells not involved

**ALLERGIC**

Immunological Type-4 hypersensitivity
Sensitization phase 1st followed by clinical phase
Memory cells involved
In predisposed person

**D - PATCH TEST**

E.g. nickel → H/C overall
  2) PPB → in hair dye
  3) vegetable - M/C in Indian female

**READINGS of PATCH TEST**

<table>
<thead>
<tr>
<th>1st Read</th>
<th>2nd Read</th>
<th>For neomycin, PPD - metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 0</td>
<td>Day 2</td>
<td></td>
</tr>
<tr>
<td><strong>Day 4</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OCCUPATIONAL CONTACT DERMATITIS**

A) Air borne Contact Dermatitis / Phytophoto dermatitis

Seen in farmers
Exposed to Ag - from Parthenium Plant
 coupled to some exposure
A - Photo Patch Test  AIIMS - May 16

- Closed  open  \( \rightarrow \) Become Red
- Remains  \( \bigcirc \) UV light

DOC - AZATHIOPRINE

B) CEMENT DERMATITIS
   - \( Ag \) → Potassium Dichromate

C) HAIR DRESSERS
   - \( Ag \) → PPD

D) TEXTILES
   - \( Ag \) → Azo Dyes

III> POMPHOLYX

- Form of HAND / FOOT ECZEMA
- Severe spongiosis
- Presenting as Deep seated Blisters on Palm + Sole
- Sagd GRAIN like feel, severe itching
DRUG REACTION

A> FIXED DRUG ERUPTION

M/C cause - NSAIDs
other tetracyclines
Metronidazole
Sulphonamides

on drug exposure

→ Red itchy rash

Lessons:
Reurrence on same side

become hypo pigmented

Resolves

on drug re-exposure

Common site = Lips, Genitals

Pigmentation is Bluish-Ulery

[BROWN PIG. ON NOSE Post Fever = CHIK sign
seen in chikungunya]

Bullous FDE is seen in Genitals

On Genitales it comes as recurrent blisters
Ulcer healing is hyperpigmentation
(not in Herpes genitalis)
ERYTHEMA MULTIFORME

C/F - Target lesions \( \rightarrow \) 3 Zones

ETIO-
- Herpes - HSV
- Other - Mycoplasma
- Pathogen
- Drug

Rx - Self limiting

Bullous EM \( \Rightarrow \) centre most area gets blisters

2 types of EM

<table>
<thead>
<tr>
<th>EM MINOR</th>
<th>EM MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few target lesions</td>
<td>Many target lesions</td>
</tr>
<tr>
<td>No mucosal involvement</td>
<td>One mucosa involvement (oral)</td>
</tr>
</tbody>
</table>

C\> STEVENS JOHNSON SYNDROME (SJS)
TOXIC EPIDERMAL NECROLYSIS (TEN)

ETIO - Mainly Drug Induced
- Sometimes Mycoplasma...

C/F - 1) Targetoid lesion or atypical target zones
2) \( \geq 2 \) mucosa involved

Depending on \% Body

\(<10\% \rightarrow 10-30\% \rightarrow >30\% \)

SJS Overlap TEN
TEN (LYELL'S SYNDROME)

Dead Basal Layer

SB Fas Receptors (apoptosis)

CD8 Cytotoxins

Cut in Basal Layer

T cells

Blisters

Death extends to full epidermis (necrosis)

Fall off

Barrier Loss

Rx - FAS Blocker \( \rightarrow \) IVIG

CD8 Cell Inhibitor \( \rightarrow \) CYCLOSPORINE

NICHOLS * NIKOLSKY SIGN

Tangential movement of finger creates epidermal movement of a raw area underneath.
BLISTERING DISORDERS

A) IMPETIGO

NON-BULLOUS

IMPETIGO CONTAGIOSA

Staph > or a strepto

Commonest Skin Infection in Children

Honey coloured crusts around mouth & nose

BULLOUS

PEMPHIGOUS NEONATORUM

Staph

Sub corneal

Dsg

E. Toxin. disseminated

Blood

(Exfoliative) SSSS

(Exfoliative)

DIF = (-ve)

Hypopyon sign - pus in Lower 1/2

Dsg I → Seborrheic Areas

Mucosa - absent

Child

RETTER'S Disease

Present only in children as scale crust lesion on

Seborrheic Areas. No Mucosal Involvement

Fever

Nikolsky Sign (+)
B) PEMPHIGUS

1) P. FOLIAECEOUS
   - Seen in adults
   - No fever
   - Scale/crust in seb. area
   - No mucosa

2) P. ERYTHEMATOSUS
   - Also called SENEAR- USHER SYNDROME
   - Variant of PF
   - PF × + SLE
   - PE

3) P. VULGARIS
   - Dsg 3 Disorder
   - Present all over body
   - Also +nt in mucosa

Deep wounds open painful wound, slow to heal
Severe mucosal involvement
2 TYPES

**MUCOSAL**
- Only DSq 3 involved

**MUCOCUTANEOUS**
- Both DSq 1 & 3 involved

47. **P. VEGETANS**
- Looks like a vegetable
- Cauliflower-like masses in flexures
- Variant of PV
- Rarest pemphigus

5. **PARANEOPLASTIC PEMPHIGUS**
- Resembles P. vulgaris but has Internal Malignancy
  - H/c = NHL
  - Others: CLL
  - Castleman Disease
  - Thymoma
  - Retroperitoneal Sarcoma

Nikolsky sign + in all pemphigus.

Rx =
1) Systemic steroid - Doc
   - High Dose
2) Non-steroidal immunosuppt.
   - Eg. Azathioprine, Mycophenolate, Cyclophosphamide
3) **Rituximab**  
monoclonal antibody against **CD20** receptor on B cell surface

- **BULLOUS PEMPHIGOID**
  - Tense, itchy blisters
  - Blister on come on red, warty, i.e., skin
    - Extremities
    - Trunk
  - Elderly patients

**HELP** - Subepidermal blisters + eosinophils

**BULLA SPREAD SIGN**/ **LUTZ SIGN**

- [ ] Bullous Pemphigoid
- [ ] P. vulgari

**ASBOE - HANCE SIGN**

- Variant of Bulla sign
- Pressing on top of blister not from one side

**BP in [ ] ⇒ GESTATIONAL PEMPHIGOID**

- (Herpes gestationis)
- / Umbilical
  - N/C Site - Periumbilical blisters
DERMATITIS HERPETIFORMIS

Papillary tip blisters
- Microabscess Q

SLIDE - 20

Transglutaminase

Gluten (Ag)

Coelic

IgA

DIF -> IgA @ tip of Dermal Papilla in a granular pattern

Severe itching

Grouped papulovesicles on elbow

Doc = Dapsone + Gluten free diet

E) LIGA/ Chronic Bullous Disorder of Childhood

LIGA/ Chronic Bullous Disorder of Childhood (CBDC)

Adults

Children

- Itchy tense blisters in a cluster of jewel or string of pearls appearance

- 50% have mucosal involvement

- Doc - Dapsone
F) **HAILEY / HAILEY DISEASE**

Benign Familial Pemphigus
Age of presentation: 2-4th Decade
Fluid Blister in Flexors, rupturing easily to create erosions, painful feature.

H/P - Dilapidated Brick Wall Appearance
Level of Blister: SUPRABASAL

G) **EPIDERMOLYSIS BULLOSA**

(Trauma Induced Blister)
Blister: At site of handling
HITTED HAND DEFORMITY seen in EBD.
Δ - electron microscopy

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WhatsApp: http://mbbshelp.com/whatsapp
VASCULAR LESIONS

VASCULAR TUMOURS

Infantile Hemangioma
( Strawberry hemangioma
 Capillary "
 Cavernous " )

Grows Rapidly – till 9 month
Then Plateau phase then
Resolve

Blanches on pressure

Propranolol & Docr.  if

- Rapidly
- Ulcerating
- Near Eye

STURGE WEBER SYNDROME

I/L Port wine Stain +

I/L Eye Involvement +

Same Side CNS Involvement

VASCULAR MALFORMATION

Port wine Stain
Persists throughout life
( Port wine stain on glabella called a salmon patch
Resolves )

Doesn’t blanch

Associated with Sturge Weber

Syndrome

Pulse Dye Laser ( PDL )
**ICHTHYSOS**

- Generalised. Dry skin
- Fish like scales
  *Icthyos* = means fish

A) **CONGENITAL ICHTHYSIS**

1. **ICHTHYSIS VULGARIS**
   - Flexures spared
   - Palms/Soles Involved
   - Small scales
   - Association - atopy
   - H/P → Absent granular layer

2. **X-LINKED RECESSIVE ICHTHYSIS**
   - Flexures Involved
   - Palm/sole spared
   - Steroid sulphatase deficiency
   - Large Brown Scales

3. **LAMELLAR ICHTHYSIS**
   - Entire skin involved
   - Plate like large scales (Lamella-Plate)
   - Born in "Collodion membrane"
B) ACQUIRED ICHYOSIS

CRF
AIDS
Hypothyroidism
Hansens
Drug Induced (Nicotinamide, Clofazimine)