PEMPHIGUS

- Pemphigus is a group of autoimmune potentially life threatening disease that intraepithelial blisters and erosions of the skin and mucous membrane.

VARIANTS

The major variants of pemphigus are

1. Pemphigus vulgaris
2. Pemphigus foliaceus
3. Paraneoplastic pemphigus
4. Pemphghius vegetans
5. Pemphigus erythematosus
6. Brazilian pemphigus

Pathogenesis

Circulating IgG4 Pemphigus autoantibodies bind to desmoglein-3 & -1 found in desmosomes which are present on the keratinocyte cell membrane

↓

Lysis of intercellular cement substance

↓

Acantholysis

↓

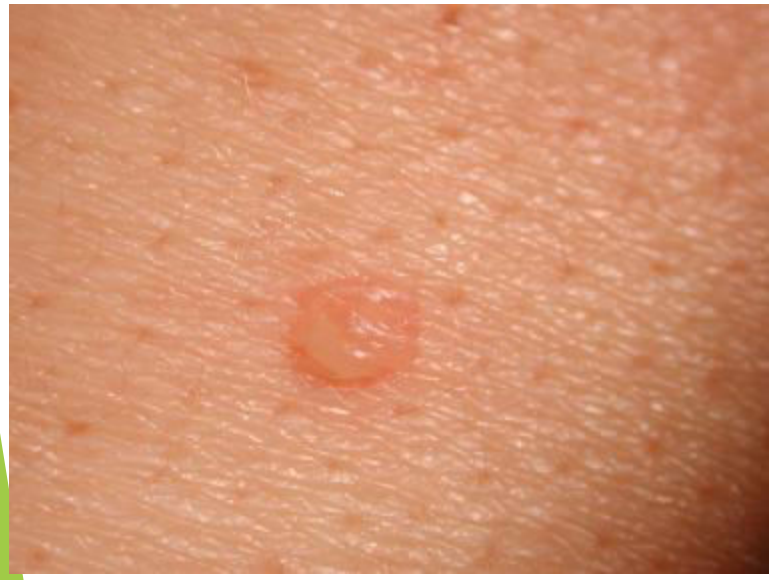
Intra-epidermal blister

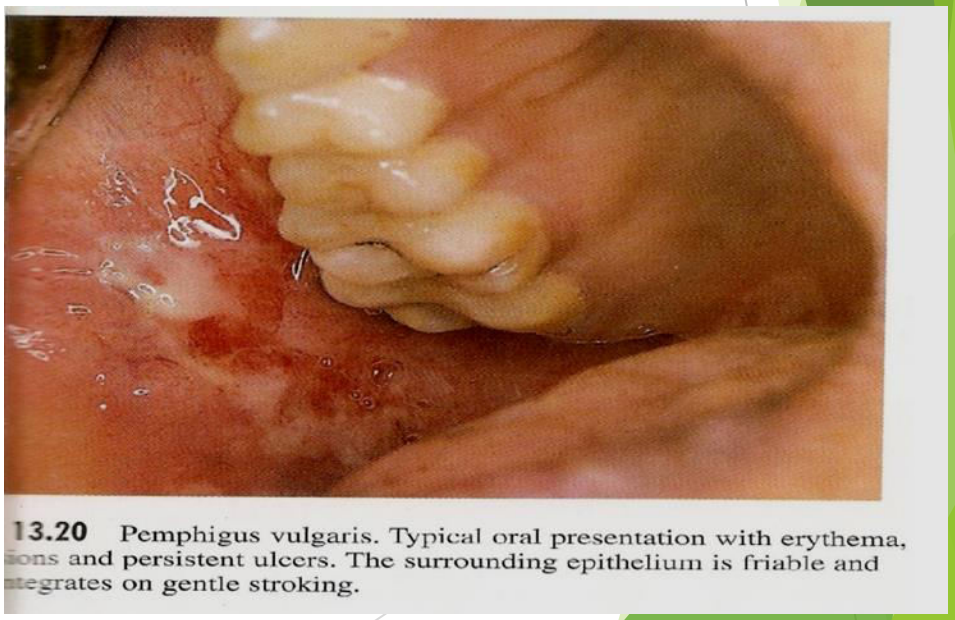
Blister cavity consists of mainly acantholytic cells

CLINICAL MANIFESTATION

- 60% oral lesion are the first sign.
- Females & 40-60 years.
- Lesions - first in the mouth scalp, trunk and umbilical area.
- Lesion consist of fragile vesicles- Ruptured- painful irregular erosions with clear fluid but.
- Nikolsky's sign positive.
- mucosal lesion heal without scarring.

- Skin lesions of pemphigus usually heal by scar formation
- Involving entire body and condition becomes as severe as the burn case.
- Death : dehydration and septicemia.



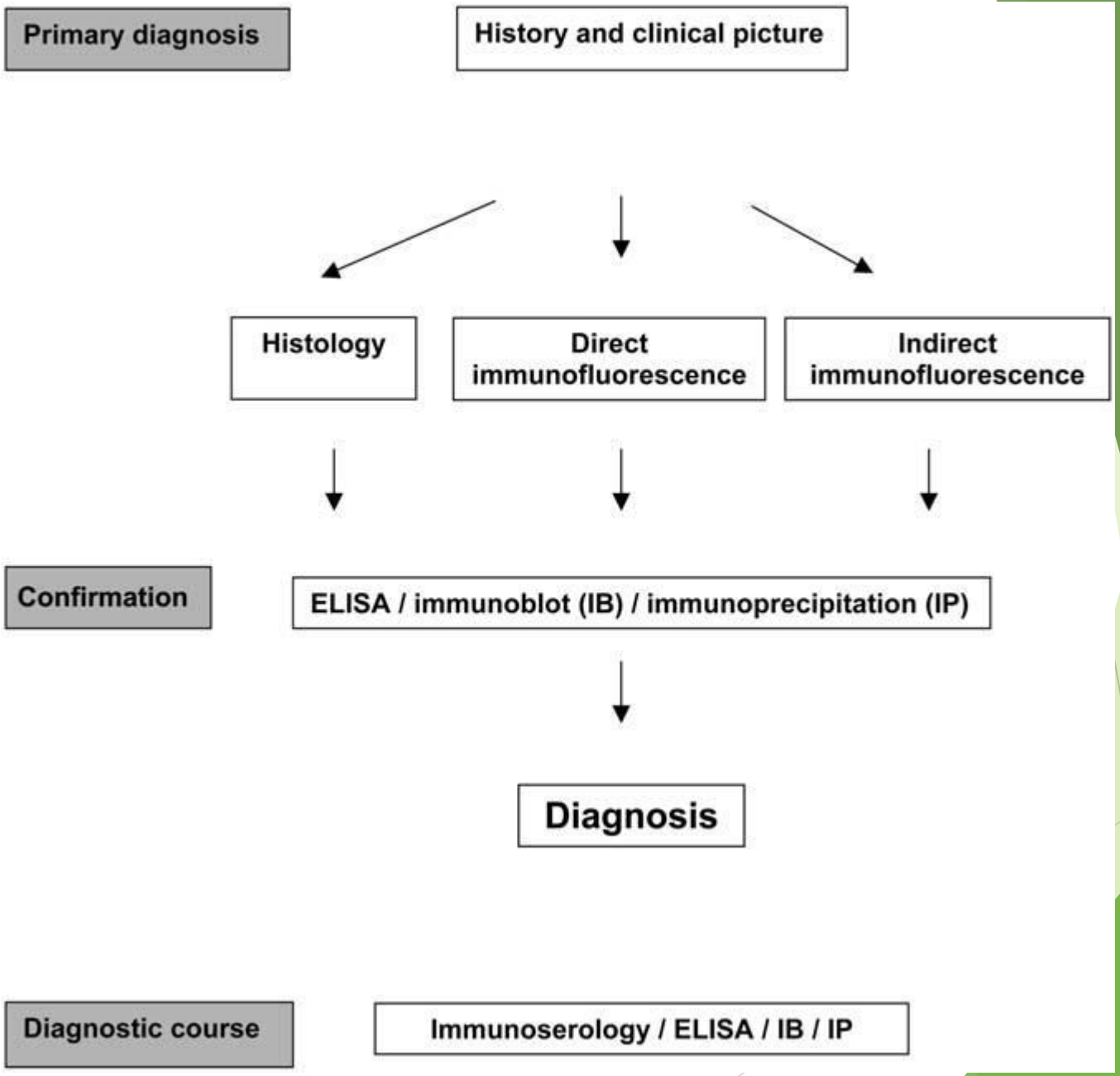


13.20 Pemphigus vulgaris. Typical oral presentation with erythema, ions and persistent ulcers. The surrounding epithelium is friable and tegrates on gentle stroking.

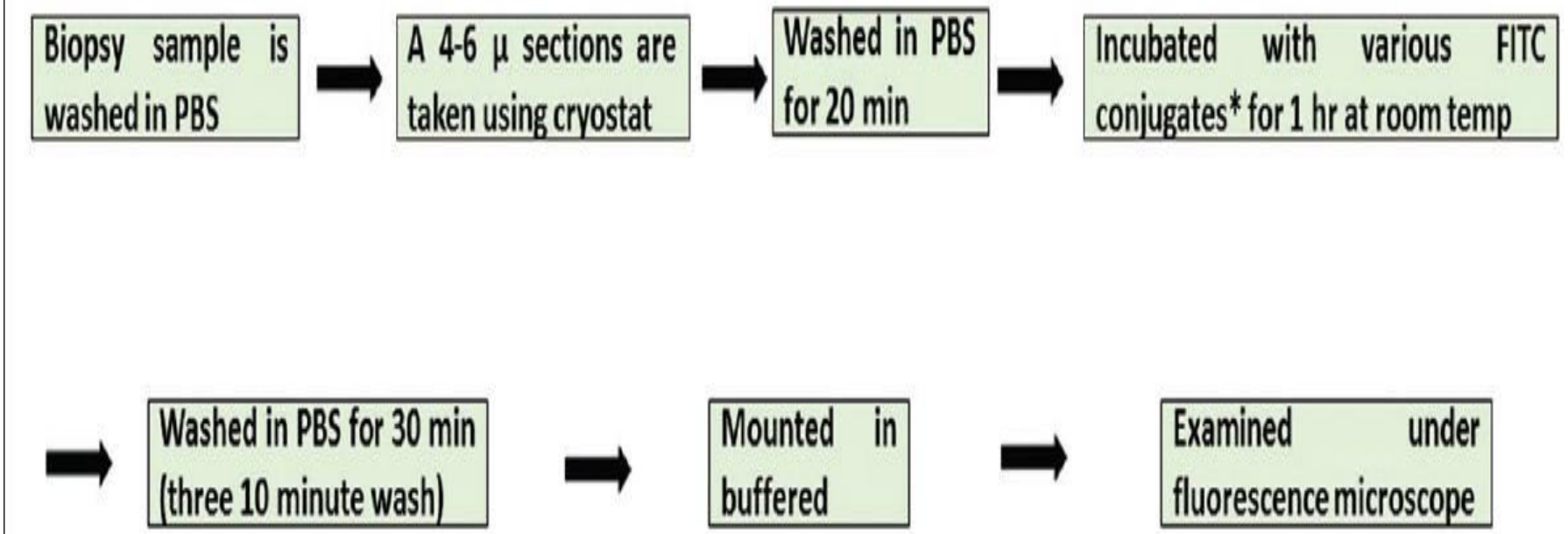
- but for the

ORAL LESIONS

- 80to 90 percents of pt dev lesions.
- The oral lesion or vescile often begin as a bleb like blister or as a diffuse gelatinous plaque with followed by shallow irregular ulceration.


Primary diagnosis
History and clinical picture
Histology
Direct immunofluorescence
Indirect immunofluorescence
Confirmation
ELISA / immunoblot (IB) / immunoprecipitation (IP)
Diagnosis
Diagnostic course
Immunoserology / ELISA / IB / IP

Direct immunofluorescence (DIF):



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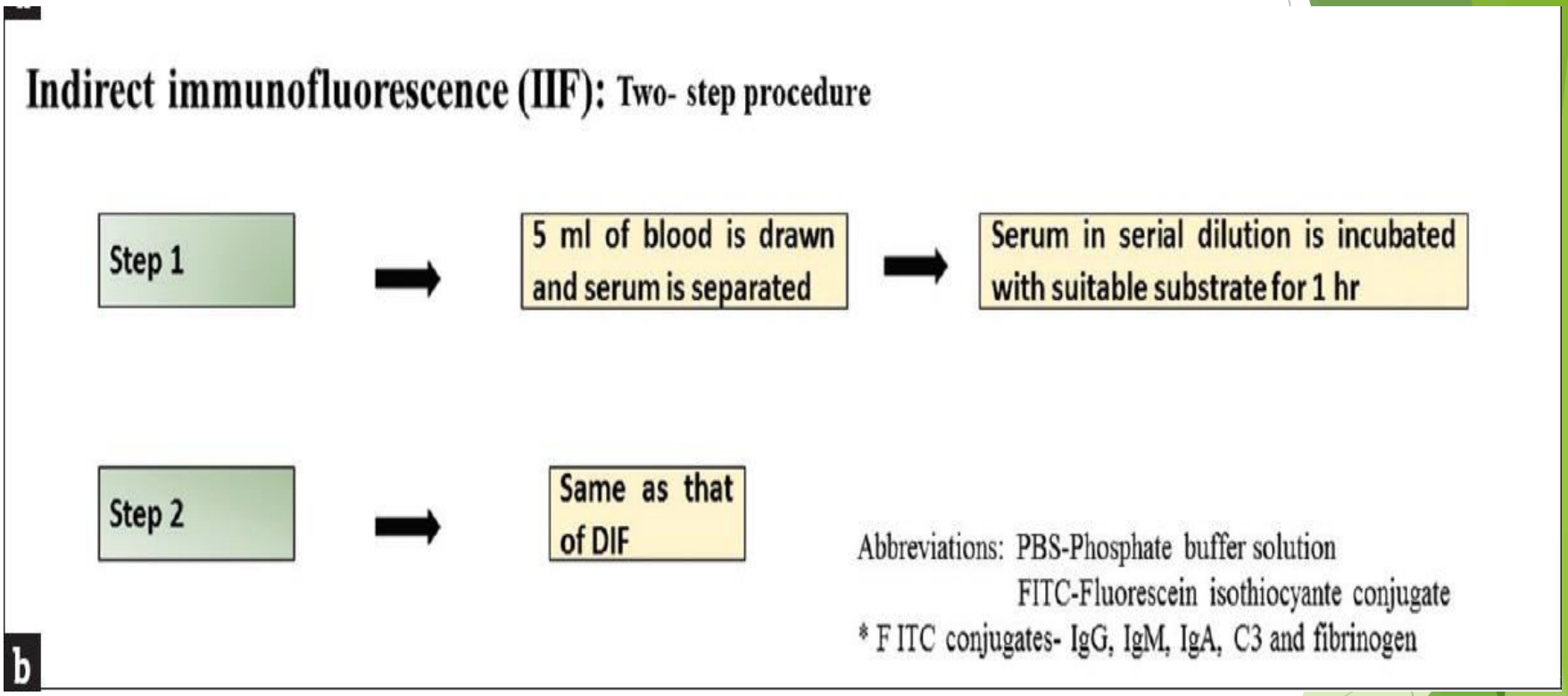
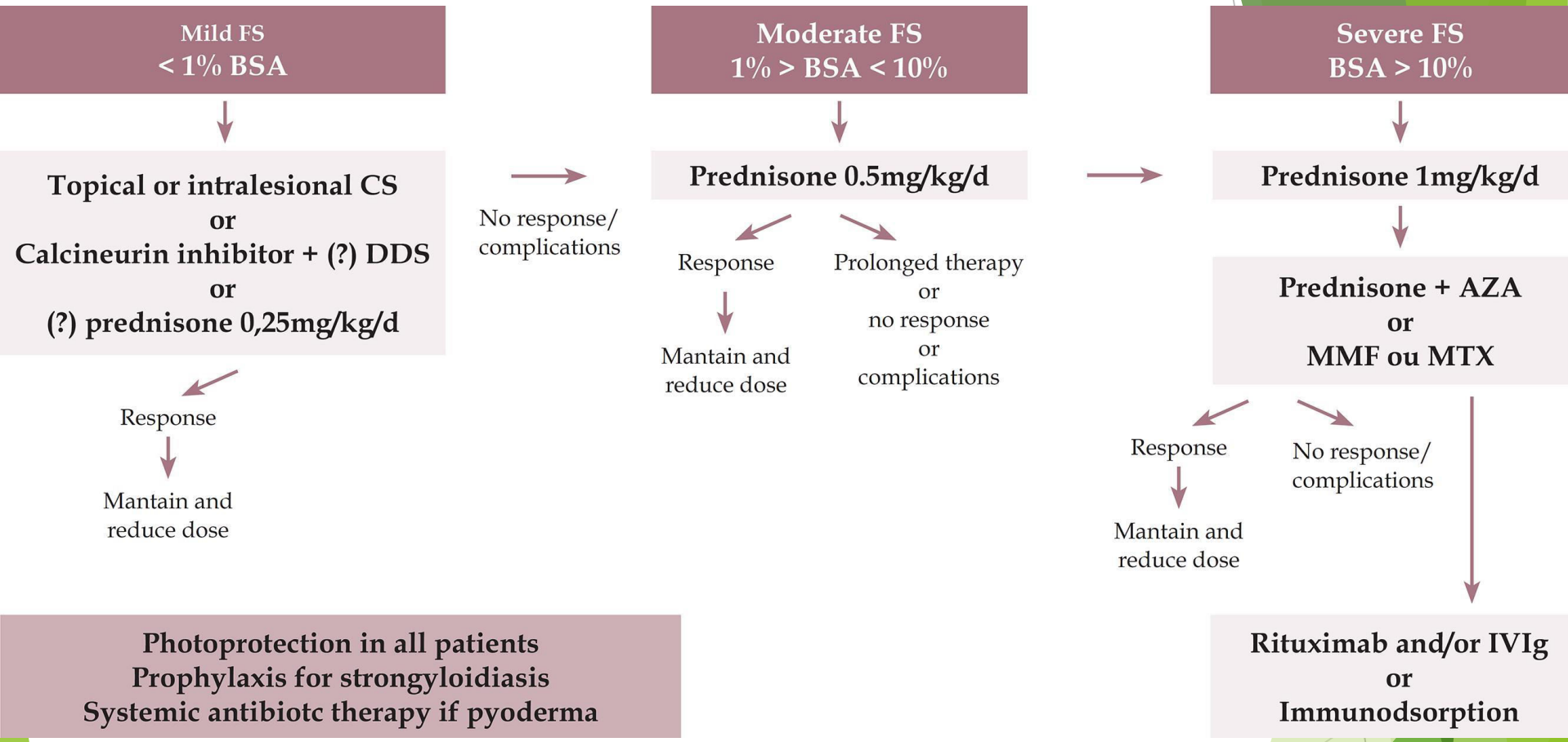

Indirect immunofluorescence (IIF): Two- step procedure
Step 1
5 ml of blood is drawn and serum is separated
Serum in serial dilution is incubated with suitable substrate for 1 hr
Step 2
Same as that of DIF
Abbreviations: PBS-Phosphate buffer solution
FITC-Fluorescein isothiocyante conjugate
* F ITC conjugates- IgG, IgM, IgA, C3 and fibrinogen
b

DIFFERENTIAL DIAGNOSIS

- Pemphigoid
- Erythema multiforme
- Bullous lichen planus
- Dermatitis herpitiformis
- Desquamative gingivitis
- Toxic epidermal necrolysis
- Apthous ulcers
- Epidermolysis bullosa

MANAGEMENT



- Mycophenolate mofetil
- Azathioprine

An Bras Dermatol. 2019;94(2 Suppl 1):S20-32.

Recurrent apthous ulcer

Aphthous ulcers are well-demarcated, shallow, ovoid, or round and have a necrotic center with a yellow-gray pseudomembrane, a red halo, and slightly raised red margins.

aphthae, or canker sores

Etiology :

- unclear,
- T–cell-mediated. Cytokines, such as IL-2, IL-10, and particularly TN-alpha, play a role.

Predisposing factors include

- Oral trauma
- Stress
- Foods, particularly chocolate, coffee, peanuts, eggs, cereals, almonds, strawberries, cheese, and tomatoes

	MINOR RAS	MAJOR RAS	HERPETIFORM RAS
Gender predilection	Equal	Equal	Female
Morphology	Round or oval lesions Gray-white pseudomembranes Erythematous halo	Round or oval lesions Gray-white pseudomembranes Erythematous halo	Small, deep ulcers that commonly converge Irregular contour
Distribution	Lips, cheeks, tongue, floor of mouth	Lips, soft palate, pharynx	Lips, cheeks, tongue, floor of mouth, gingiva
Number of ulcers	1–5	1–10	10–100
Size of ulcers	<10mm	>10mm	2–3mm

Recurrent aphthous stomatitis (idiopathic)

Drug Induced

Autoimmune diseases

fever syndromes

Cyclic neutropenia, PFAPA (periodic fever, aphthous stomatitis, pharyngitis, cervical adenitis),

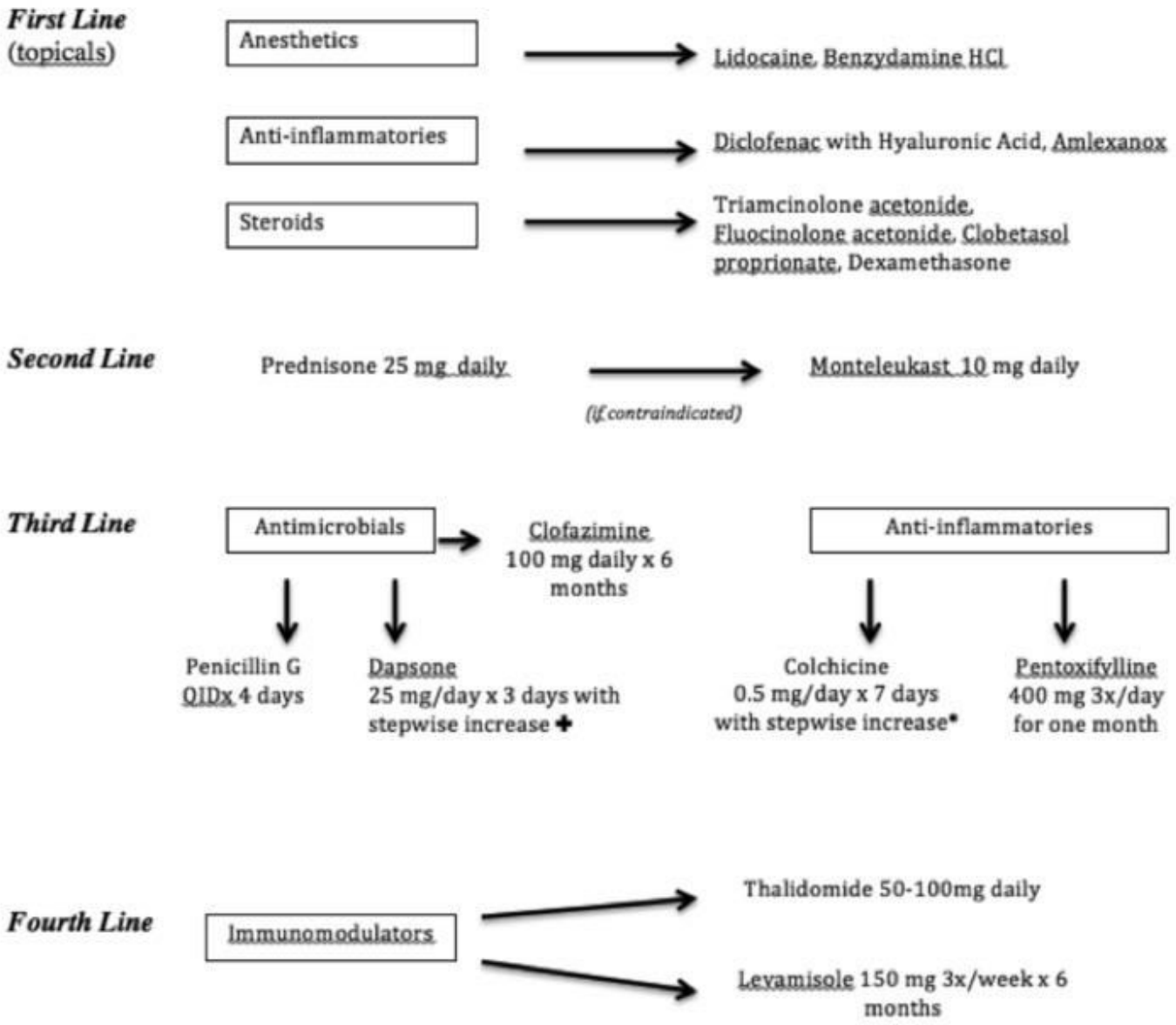
Sweet syndrome Familial Mediterranean fever,

hyperimmunoglobulinemia D with periodic fever syndrome (HIDS)

Vesiculobullous disorders

Nutritional Deficiency

iron, folate, zinc, B1, B2, B6, B12

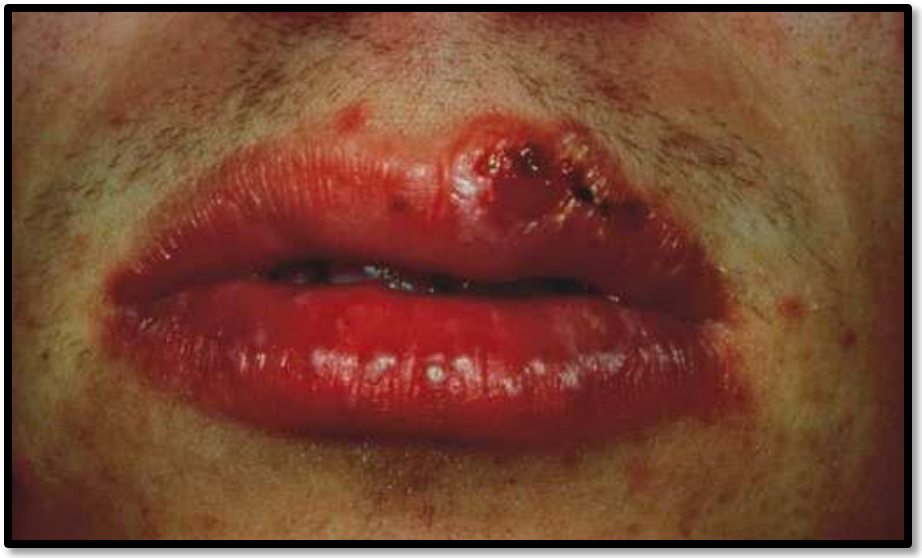


+ Increase to 50 mg/day for next three days, to 75 mg/day for next three days, then maintenance dose of 100mg/day.

* Increase to 1 mg/day for next days, then to maintenance dose of 1.5 mg/day

	MINOR RAS	MAJOR RAS	HERPETIFORM RAS
Prognosis	Lesions resolve in 4–14 days No scarring	Lesions persist >6 weeks High risk of scarring	Lesions resolve in <30 days Scarring uncommon

Erythema Multiforme



It is an acute, self limited, inflammatory mucocutaneous disease of the skin and oral mucous membranes that causes a variety of skin lesions—hence the name “multiforme.” The oral lesions, typically inflammation accompanied by rapidly rupturing vesicles and bullae.

Two types

Erythema multiforme may occur once or recur.

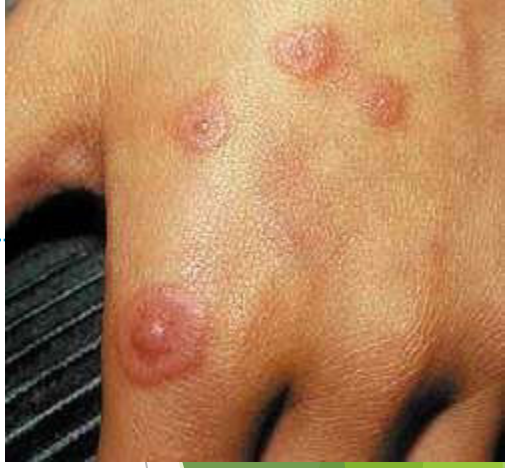
A] Mild, self-limited rash -erythema multiforme minor

B] Severe, life-threatening form -erythema multiforme major (Or erythema multiforme majus)-Steven's Johnson Syndrome

Etiology

- Infection with herpes simplex, *Mycoplasma pneumoniae or other organisms*
- Drug consumption, Sulfonamides, Antibiotics, Analgesics, Barbiturates
- Radiation therapy.

Clinical Presentation



- oral mucosa and skin.
- **young adults**
- **Target or iris skin** lesions may be noted over extremities.

Asymmetrical erythematous maculopapular lesions eventually break and coalesce to form plaques on the skin.

Target or iris lesion (“bull’s eye”) is the classical cutaneous lesion of EM. These lesions manifest as central bulla or a pale clearing area encircled by concentric bands of edema and erythema.

ral cavity

- non keratinized mucosa and anterior parts of the oral cavity.
- shallow erythematous and hyperkeratosis plaques to tender deep-seated hemorrhagic bullous and erosive lesions.
- Swollen lips along with typical blood tinged crusted lesions are the hallmark of EM.

Differential Diagnosis

- Acute herpetic gingivostomatitis

  Erythema multiforme rarely affects the gingiva
- Pemphigus vulgaris
- Major apthous ulcers
- Erosive lichen planus
- Mucous membrane (cicatricial) pemphigoid

Treatment

- Topical or systemic steroid (prednisone [40–60 mg/d then the dose should be tapered over 2–4 weeks])
- parenteral fluid replacement,
- antipyretics
- viral infection or trigger exists-systemic antiviral drugs

Prognosis

Generally excellent
Recurrences common

Stevens-Johnson Syndrome

Etiology

- A complex mucocutaneous disease affecting two or more mucosal sites simultaneously
- Most Common Trigger: Recurrent Herpes Simplex Infection, Infection with *Mycoplasma*, Medications
- Sometimes referred to as “erythema multiforme major”

Aetiology

(1) INFECTIOUS

- Viral diseases: herpes simplex virus (HSV), AIDS, coxsackie viral infections, influenza, hepatitis, mumps,
- Bacterial: Group A beta streptococci, diphtheria, *Brucellosis*, *Mycoplasma pneumoniae* and typhoid.
- Protozoa: Malaria and trichomoniasis
- In children, Epstein-Barr virus and enteroviruses have been identified.
- More than half of the patients with SJS report a recent upper respiratory tract infection

(2) DRUG INDUCED

- Penicillins and antibiotics (2/3 of patients with SJS)
- Anticonvulsants have been implicated : carbamazepine and phenytoin (most anticonvulsant-induced SJS occurs in the first 60 days of use)

NSAIDS

Allopurinol

(3) MALIGNANCY RELATED

- Various carcinomas and lymphomas have been associated

(4) IDIOPATHIC

- SJS is idiopathic in 25-50% of cases

Paediatric cases are related more often to infections than to malignancy or a reaction

Clinical Presentation

GENERAL

- Eye (conjunctival), Genital, Cutaneous,
- Iris or target lesions are characteristic on skin.

Oral Lesions

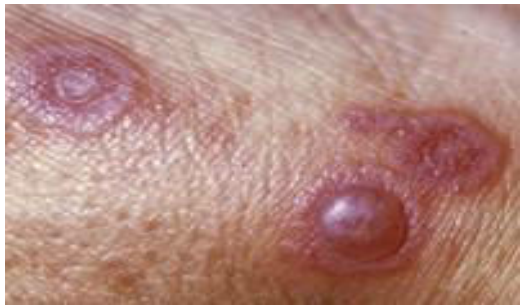
- Labial vermilion and anterior portion of oral cavity
- Early phase is macular followed by painful ulceration
- Lip ulcers- crusted and hemorrhagic
- Pseudomembrane; foul-smelling
- Vesicle→ painful erosions → grayish white /hemorrhagic pseudomembranes.
- Posterior oral cavity and oropharyngeal involvement - odynophagia, sialorrhea, drooling

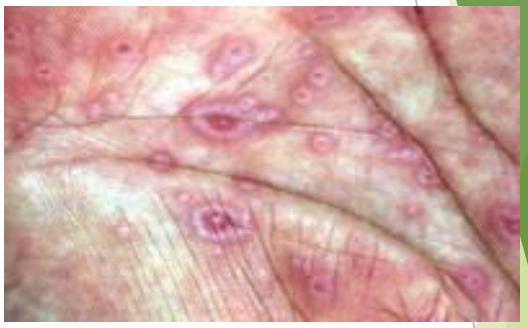
EXAMINATION

Macules that develop into papules, vesicles, bullae, urticarial plaques, or confluent erythema

- The center of these lesions may be vesicular, purpuric, or necrotic
- The typical lesion has the appearance of a target.

The target is considered pathognomonic





Rings of red, white and pink

In contrast to the typical erythema multiforme lesions, these lesions have only two zones of colour

Lesions may become bullous and later rupture, leaving denuded skin. Skin is susceptible to secondary infection

The palms, soles, dorsum of the hands, and extensor surfaces are commonly affected

The rash (symmetrical) may be confined to any one area of the body, most often the trunk

Mucosal involvement

Differential Diagnosis

- Pemphigus vulgaris
- Paraneoplastic pemphigus
- Bullous pemphigoid
- Acute herpetic gingivostomatitis
- Stomatitis medicamentosa

Investigations

No laboratory studies (other than biopsy) exist that can aid the physician in establishing the diagnosis

Skin biopsy is the definitive diagnostic study

- Bullae are subepidermal
- Epidermal cell necrosis may be noted
- Perivascular areas are infiltrated with lymphocytes

Treatment

- Hydration

-Oral rinses

-Topical steroids–

-hydrocortisone-wycort 2.5% ointment

-Orabase 0.5%

-Triemcinolone-kenolog cream o.1%

-Betamethasone-valisone cream 0.1%

- Systemic corticosteroid – Tab.cortin 100 mg 6 hrly Tab.wysolon 60 mg in div doses
- Antiviral -Acyclovir, famciclovir, valacyclovir
- May require admission to hospital burn unit

Prognosis

Good;

self-limiting usually

Recurrences common

Prognosis

Individual lesions typically should heal within 1-2 weeks

Most patients recover without problems

Development of serious sequelae, such as respiratory failure, renal failure, and blindness, determines prognosis in those affected

Up to 15% of all patients with SJS die as a result of the condition