

# Scar Management

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## What is a Scar - - - ?

- Scaring is the process by which wounds are repaired.
- Damage to the dermis is required to produce scar



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## Scar Formation

- **Inflammatory**  
phase 1-2 days
- **Granulation phase**  
Fibroblast  
proliferation &  
migration → collagen  
type III  
Angiogenesis
- **Remodeling phase**  
type III → → I  
2- 3 wks - - - - 1y



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## Scar Formation

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Final wound strength 70 – 80% of prewound strength

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## Scar Formation

- Scar can occur after physical trauma or as a part of disease process.
- Genetic predisposition in some people to produce thicker, itchy, enlarging scars  
**Keloids**

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## Epidermolysis Bullosa



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## Lamellar Ecththysis



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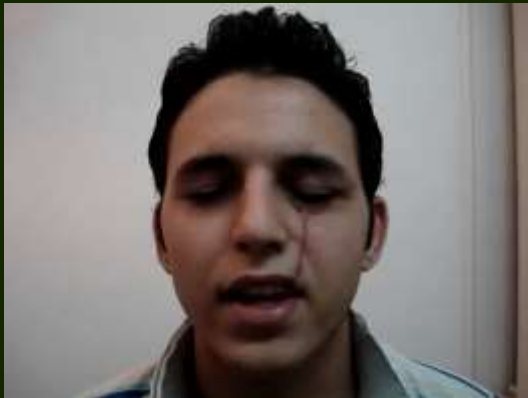
## Chemical Burn



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## How to minimize Scar occurrence - - - ??

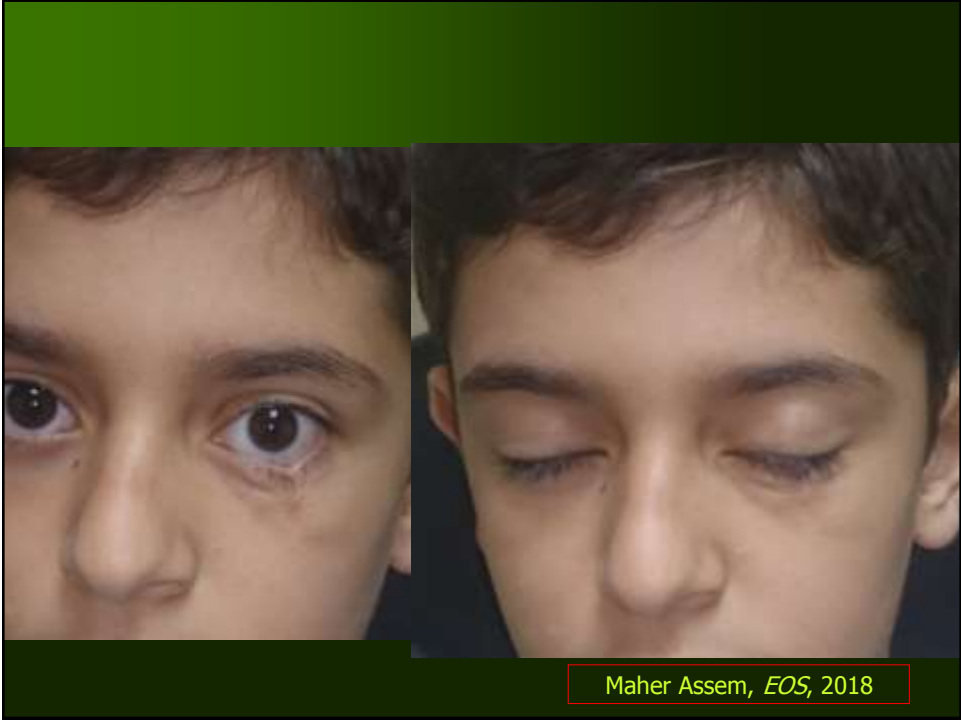
- Meticulous Surgical technique
  - = precise tissue approximation
  - = closure without tension
- Gentle tissue handling
- Minimize unnecessary cautery
- Wound in the Resting Skin Tension Lines

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## Resting Skin Tension Lines



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## Risk Factors for poor wound healing = Ugly wide scar

- Chronic illness ( diabetes )
- Darker skin types
- Poor nutritional status
- Smoking ( stop 2- 4 wks before surgery)
- Over Exposure to sunlight
- + + + post-op tensional stress on the wound
- Infection

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## Early scar management

- Wound massage with steroid antibiotic ointment after suture removal
- Silicone gel or adhesive sheets ( mederma) first 2 months.
- Chlobetasol 0.05% ( Q – tip )

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## Progressive Hypertrophic or Keloid scars

■ **Intralesional triamcinolone injection** mid dermis

= lure-lock syringe

= lidocaine then

20mg/ cc + lidocaine

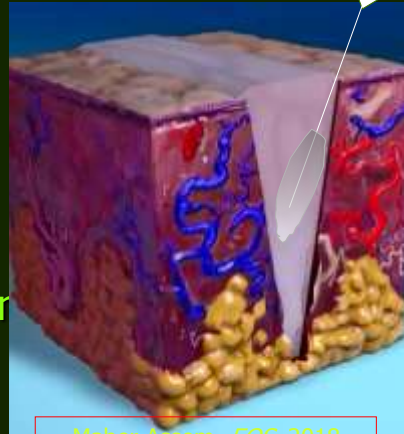
= can be repeated every

4 wks

reduce fibroblast population

Reduce NV formation

Decreasing fibrosis

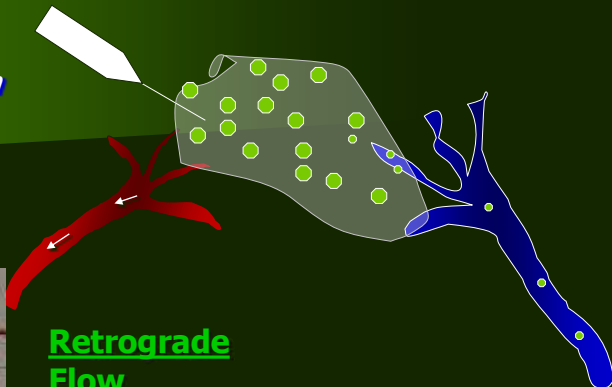
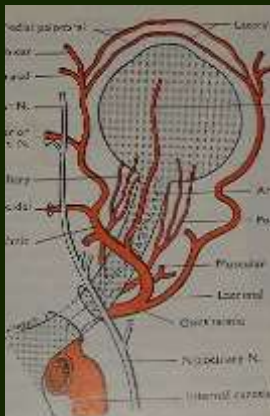


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***Eyelid necrosis***

***Skin depigmentation***

***Fat atrophy***



**Retrograde Flow**

Ophthalmic or CRA.

**Adrenal suppression**

***Intralesional Steroid Injection***

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## Intralesional 5 FU injection 50mg / cc

Every 4 wks for 3-4 cycles

### Better results

#### ■ Contraindications

anemia, leukopenia, thrombocytopenia,  
pregnancy, BM depression infection &  
concurrent

#### ■ Side effects ( less )

= Hyper pigmentation

= Skin sloughing

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## Surgery

#### ■ Excision or revision

fusiform excision

Z plasty

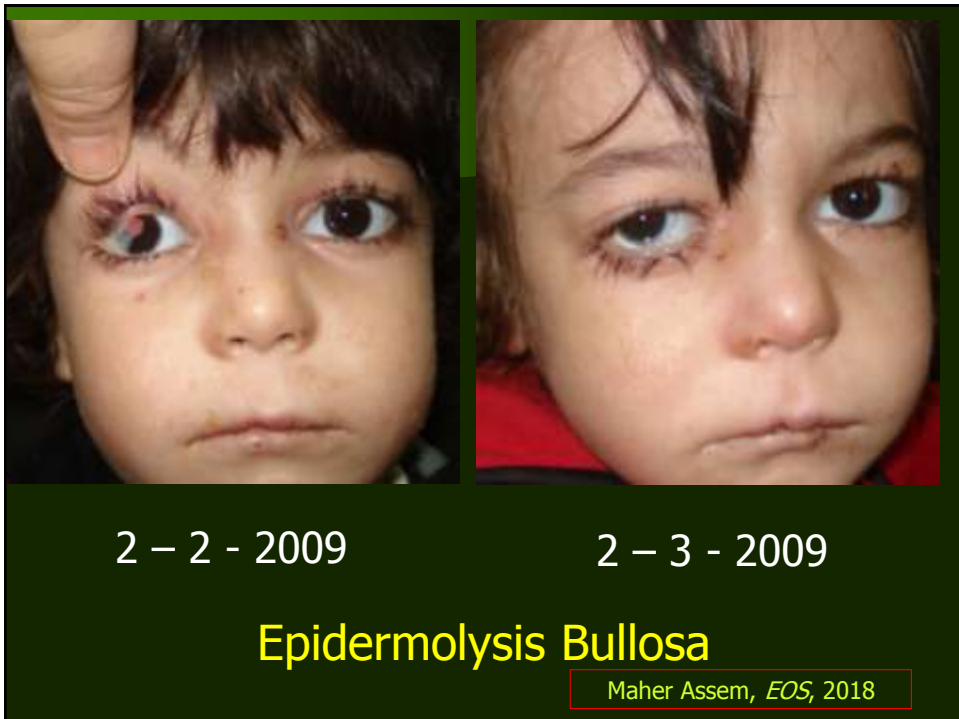
Advancing flap

Free graft

\*\*\* Dermabrasion & Laser therapy

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5 – 4 - 2009                      11 – 1 - 2010

**Epidermolysis Bullosa**

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## Conclusion

# Scar Management

- Prevention better than treatment
- Early management ( < 3 months )  
massage steroid oint. & silicon gel or sheet
- Progressive Hypertrophic keloid  
intralesional Steroids , 5-FU
- Surgery (Excision or Revision)
- Laser therapy
- Dermabrasion

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