

# Disorders of lip



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# CHELITIS

- 1. Chapping of the lips
- 2. Contact cheilitis
- 3. Drug-induced cheilitis
- 4. Exfoliative cheilitis
- 5. Angular cheilitis
- 6. Actinic cheilitis
- 7. Glandular cheilitis
- 8. Granulomatous cheilitis

**Table 1: Proposed classification for the lip lesions**

<b>Etiology</b>	<b>Type of Disorders</b>
Developmental	Cleft lip, fordyce spots, double lip, congenital lip and commissural pits and fistulas, macrocheilia, microcheilia, eclabium
Infection	Viral: Herpes simplex/current herpes labialis Bacterial: <i>Staphylococcus aureus</i> (impetigo) Fungal: <i>Candida albicans</i> (angular cheilitis)
Granulomatous disorders	Sarcoidosis, crohns disease, tuberculosis, cystic fibrosis
Autoimmune disorders	SLE, erythema multiforme
Inflammatory conditions	Cheilitis glandularis, cheilitis granulomatosa, exfoliative cheilitis, contact cheilitis, chronic atrophic-abrasive cheilitis, eczema around lips
Allergic	Angioneurotic edema
Obstructive salivary gland disorder	Mucocele
Pigmented lesions	Hemangioma, lentigo, labial melanotic macule
Premalignant lesions and conditions	Leukoplakia, OSMF, actinic cheilitis, Intradermal naevus, lichenplanus
Benign neoplasias	Fibroma, papilloma
Malignancies	Squamous cell carcinoma, basal cell carcinoma

SLE = Systemic lupus erythematosus, OSMF = Oral submucous fibrosis

DEVELOPMENTAL DISORDERS

# Van der woude syndrome/Lip pit syndrome/Dimpled papillae of lip

- AETIOLOGY
- Autosomal dominant syndrome – cleft lip or cleft palate with distinctive lip pits
- Caused by deletions in 1q32



## CLINICAL FEATURES

- Submucous cleft palate is common
- Hyper nasal voice and cleft or bifid uvula are common findings
- Lip pits are usually medial
- Often associated with accessory salivary glands
- Missing incisors or premolars are manifested

The classic presentation in patients with VWS are congenital lower lip pits related to cleft palate.



**Figure 1:** Repaired bilateral cleft lip and symmetrical paramedian dome-shaped elevations and lower lip pits in a six-year old girl.

# LIP PIT SYNDROME



*Fig. 1. Extra oral features of patient showing the bilateral paramedian lower lip pits and the surgically repaired cleft of upper lip*

## CLINICAL FEATURES

- ❑ These include slight depressions on the vermilion border of the lip
- ❑ Fistulas that penetrate into subjacent salivary glands
- ❑ Lip pits are usually **circular or oval shaped**, but have also been described as **transverse, slit-like, or sulci**
- ❑ Cosmetic considerations are thus the most common indication for surgical intervention





*Fig. 2. intraoral features of patient showing the cleft palate with missing lateral incisors*



*Fig. 3.: intraoral features of patient showing the cross bite of arches and evident enamel hypoplasia of teeth*

Individuals who exhibit OFA may experience problems with eating, speaking, hearing and facial appearance which need correction to varying degrees by surgical intervention, speech therapy, dental treatment and psychosocial intervention

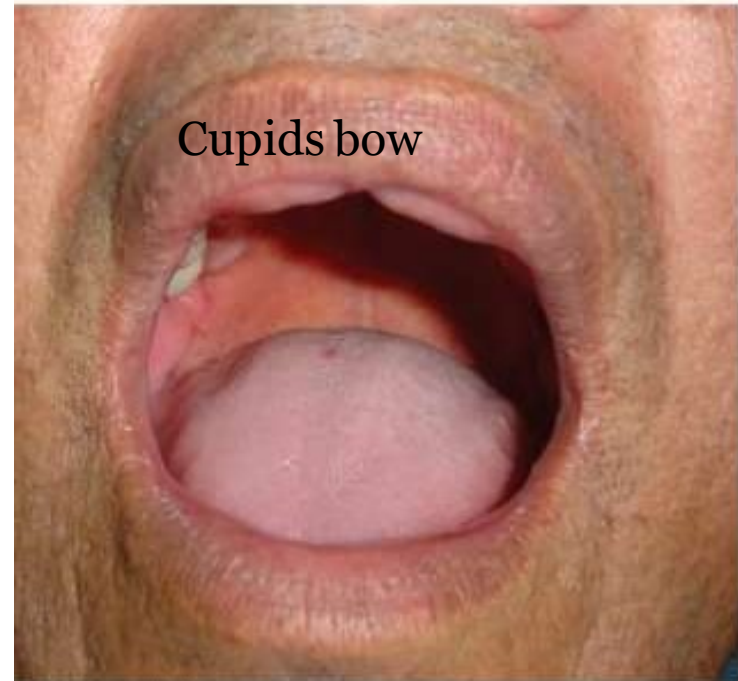
# Management

- ❖ Complete excision of sinus tracts
- ❖ Correction of abnormal elevations and protrusions
- ❖ Split lip advancement procedure
- ❖ Genetic counseling by paediatric geneticist

# Double Lip



**Figs. 1A and B:** (A) Preoperative clinical photograph at rest and (B) at smile



**Figure 1 - Double upper lip**

Excess tissue on the inner mucosal aspect of the lip

# Surgical management



**Figs. 2A and B:** (A) Transverse elliptical incision for excision of mucosal/submucosal tissue and (B) sutured wound



**Fig. 3:** Postoperative photograph showing good cosmetic result

# Chapping of lips

- ❑ Chapping is a reaction to adverse environmental conditions freezing cold or to hot dry winds
- ❑ **The keratin of the vermilion loses its plasticity**
- ❑ The affected person tends to lick the lips, or to pick at the scales, which may aggravate the condition



# Etiol

## ogy

- Over exposure of sun/cold wind
- Dehydration due to alcohol intake
- Codiene, opiates, non cholinergic drugs
- Malnutrition
- Vit C and B deficiency
- Systemic eczema
- Steriods
- Cushing syndrome

## Chapping of the lips

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Treatment is by application of petroleum jelly and avoidance of the adverse environment

# Contact cheilitis

- Major sources of allergens :
- Lipsticks and other lip cosmetics including sunscreens
- Toothpaste and other dental care products (mouthwash, denture cleaner, dental floss, toothpicks)
- Metals – dental restorations, orthodontic devices, musical instruments, metal casings of lip cosmetics, habitual sucking of metal objects
- Food, Medications, Nail varnishes
- Rubber/latex gloves
- Common allergen groups:
- Metals such as nickel
- Fragrance/Flavourings and Preservatives



# Angular cheilitis

- The disease affect one or both sides angulus oris



The usual appearance is a roughly triangular area of erythema, edema (swelling) and maceration at either corner of the mouth

# ANGULAR CHEILITIS



Perleche, Angular cheilosis and Angular stomatitis.

# ETIOL OGY

- The involved organisms are: *Candida species* alone (usually *Candida albicans*), which accounts for about 20% of cases
- Bacterial species, either: *Staphylococcus aureus* alone, which accounts for about 20% of cases
- Reduced lower facial height (vertical dimension or facial support) is usually caused by edentulism (tooth loss), or wearing worn down, old dentures or ones which are not designed optimally.



- **Nutritional deficiencies**

- ✓ Iron deficiency

- ✓ Deficiency of B vitamins (B2 , B5 ,B12 , B3)

- ✓ Zinc deficiency

- ✓ Malnutrition, in alcoholism or in strict vegan diets, malabsorption secondary to gastrointestinal disorders

- ✓ Gastrointestinal surgeries

# Systemic disorders

- Xerostomia (Dry Mouth)
- Macroglossia
- Inflammatory Bowel Diseases
- Human Immunodeficiency Virus Infection
- Neutropenia, Or Diabetes
- Drugs Isotretinoin

Inadequate dentures with reduced vertical dimension



Skin creasing with saliva leakage and maceration at corners of mouth



Systemic disease or deficiency

Trauma

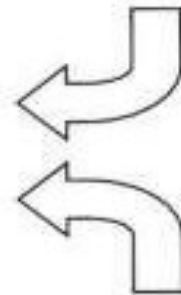
Host defences compromised

Rationale

Candida spp (mouth)

S. aureus (nose/mouth)


Angular cheilitis




# Treatment of angular cheilitis



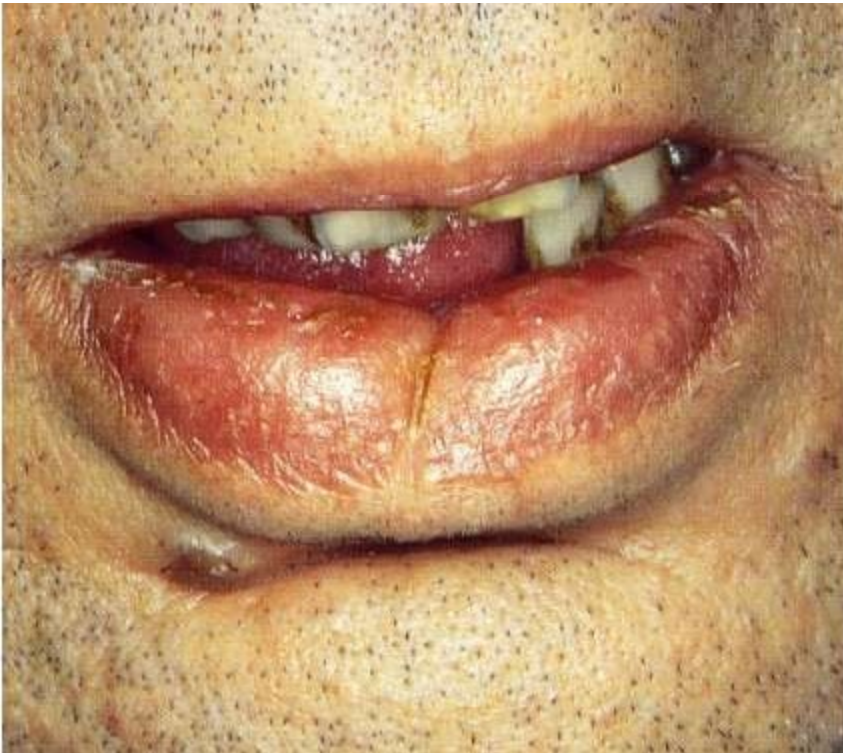
- ✓ Elimination of the predisposing factors
  - ✓ Control the oral hygiene and dental appliances
  - ✓ Advocate to take off the denture for night
- Treat of hematological or other systemic disease
- ✓ Local or systemic antimicrobial therapy

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- Treatment-
  - Lip balm or thick emollient ointment, applied frequently
  - Topical antiseptics
  - Topical or oral antibiotic
  - Topical antifungal cream
  - Oral antifungal medication
  - Topical steroid ointment
  - Nutritional supplements
  - Filler injections or implants to build up the oral commissures



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- ✓ If **Candida is implicated**, an antifungal ointment like ketoconazole should be prescribed
  - ✓ The use of miconazole nitrate 2% gel applied topically four times a day for 2 weeks is very effective treatment option.
  - ✓ When *Staphylococcus aureus* is implicated, topical treatment with a combination of mupirocin or fusidic acid and 1% hydrocortisone cream (to counter inflammation) works effectively

# Fissurated chelitis



- center of the lower lip  
Seldom ameliorate for local, needs surgical treatment.
- Candida and Staphylococci could superinfect it.

# CHELITIS GLANDULARIS

- Poorly understood inflammatory disorder of lip
- *Progressive enlargement and eversion of lower labial mucosa*
- Cheilitis glandularis (CG) is a rare chronic inflammatory disease affecting the minor labial salivary glands and characterized clinically by edema and focal ulceration

## Etiology


- ❖ Lip enlargement is attributable to inflammation, hyperemia, fibrosis and edema
- ❖ Self inflicted trauma
- ❖ Compulsive licking
- ❖ Drying-mouth breathing, atopy, eczema



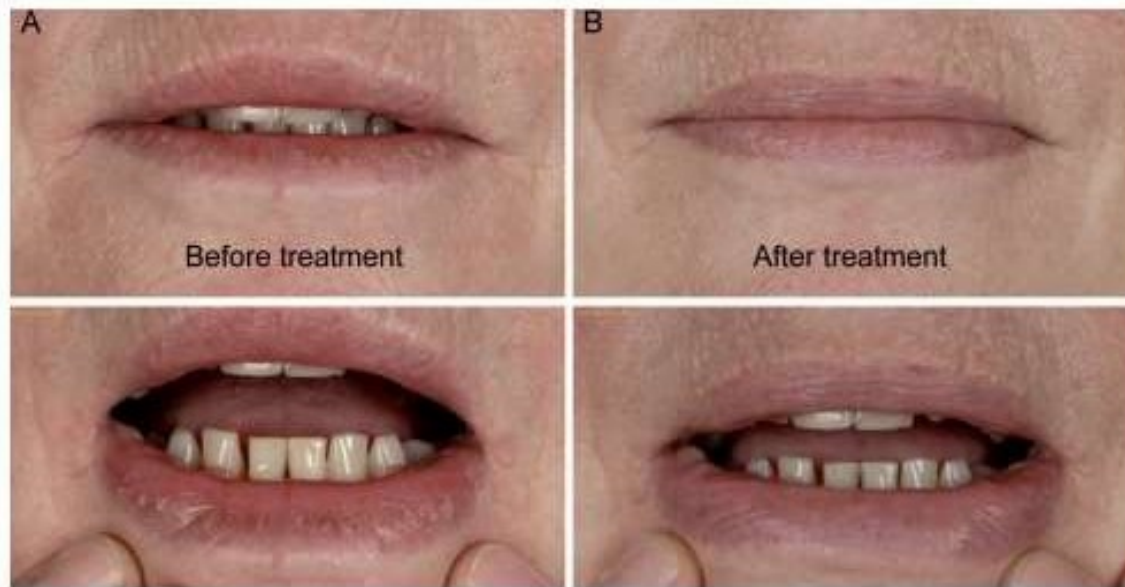
Figure 1: Extra Oral Photograph of lips with areas of dryness and scars.



Figure 2: Prominent crusted areas with dry scaly appearance and small areas of bleeding points on the Lip when stretched.

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- **Schauermann classified CG into three types:**
  - *The simple type* consists of multiple painless lesions that exhibit openings and dilated ducts.
  - *Superficial suppurative type* is characterized by painless crusting, swelling and induration of the lip with superficial ulceration. All these features were associated with the present case.
  - *Deep suppurative CG* is a deep seated chronic infection accompanied by abscess formation and fistulous tracts.
  - The latter two types have the highest association with dysplasia and carcinoma

# Chelitis glandularis simplex



*Fig. 1.* Cheilitis glandularis simplex: (A) before and (B) after successful treatment with a combination of oral minocycline 100 mg once daily and tacrolimus ointment 0.1% twice daily for 6 weeks.



Toluidine test showing areas of retention and eversion of lip



Mucus drainage in videoscopic image





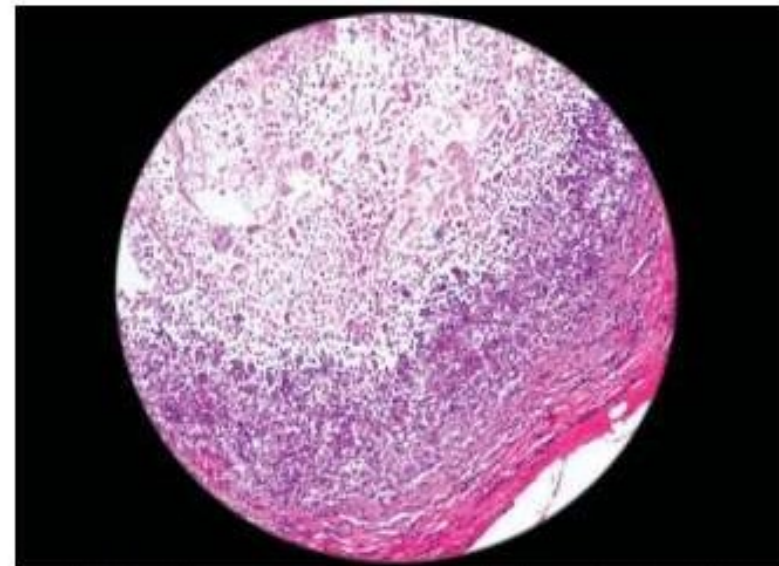
**Fig. 1:** Extraoral photograph showing ulcerated lower lip



**Fig. 2:** Inflamed, swollen, edematous lower lip with exudates over the lesion



**Fig. 3:** Severe bleeding from the lower lip even on slight touch



**Fig. 4:** Photomicrograph showing nonspecific inflammatory infiltration with lymphocytes, plasma cells and neutrophils. The labial glands were hyperplastic with focal infiltration of lymphocytes and plasma cells with ductal dilatation and mucin pooled areas (H & E, x10)

# Treatment

- ❖ Antibiotics
- ❖ Antihistamines
- ❖ Steroids
- ❖ Immunosuppressants
- ❖ Radiotherapy
- ❖ Surgical Stripping
- ❖ Vermilionectomy
- ❖ Cryosurgery
- ❖ laser surgery



FIGURE 2: Lip suture with resulting linear scar in vermilionectomy using the classic technique

# Actinic cheilitis/(farmers disease)

- Thickening whitish discoloration of the lip at the border of the lip and skin.
- There is also a loss of the usually sharp border between the red of the lip and the normal skin.
- The lip may become scaly and indurated as actinic cheilitis progresses.
- The lesion is usually painless, persistent, more common in older males, and more common in individuals with a light complexion with a history of chronic sun exposure



Erythema, erosion  
Loss of clear demarcation between  
lip and skin  
Induration



Treatment options include 5-fluorouracil, scalpel  
• carbon dioxide laser vaporization, electrocauterization, and electrocauterization, and electrocauterization.

• These curative treatments attempt to destroy or remove the damaged epithelium.

• All methods are associated with some degree of pain, edema, and a relatively low rate of recurrence.



Invasive squamous cell carcinoma



## LASER THERAPY

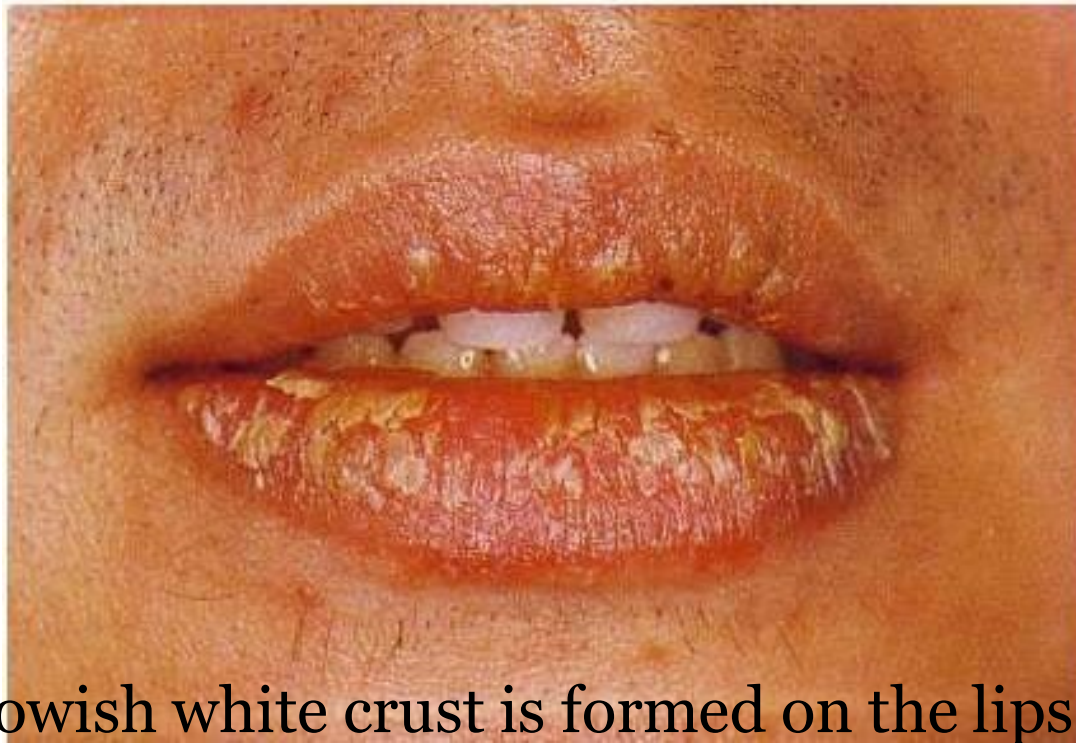


BEFORE



AFTER TWO TREATMENTS

## Exfoliative cheilitis



yellowish white crust is formed on the lips



Hyperparakeratosis



Figure 1. A 25-Year-Old Iranian Woman With Desquamation of Lips



# MANAGE MENT


- Drugs such as *hydrocortisone ointment, tacrolimus ointment, petroleum jelly, tretinoin cream, urea lotion and prednisone tablet* were used to manage EC
- The use of topical calcineurin inhibitors and moisturizing agents in the treatment of EC were associated with clinical improvement
- Urea is produced naturally in the skin and causes moisture absorption and helps to rehydration of dry and scaly skin. Furthermore, urea in the Eucerin emollient cream (10% urea) penetrates to the horny layer of skin and increases the skin's capacity to absorb moisture



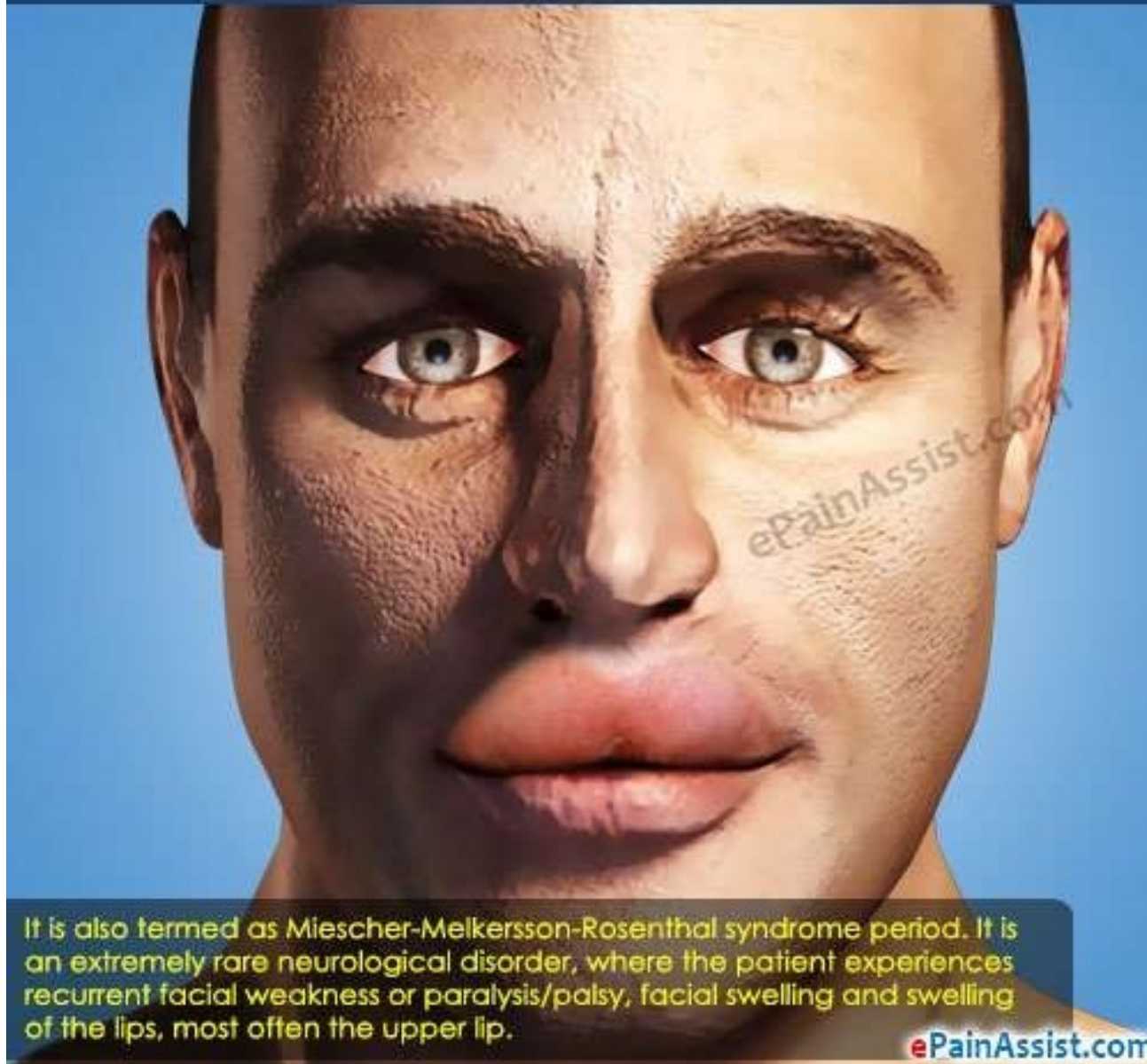
**Figure 2.** Significant Improvement After Three Months Follow-up

# Chelitis granulomatosa



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- Melkersson-Rosenthal syndrome (MRS) consists of persistent or recurrent orofacial edema, relapsing facial palsy and fissured tongue
  - The most frequent complaint is facial edema and enlargement of the lips
  - Treatment involved intralesional injection of a corticosteroid (triamcinolone 20mg/ml, 1ml each 15 days during 60 days) and clofazimine (50mg/day) during 90 days.

## Melkersson-Rosenthal Syndrome



It is also termed as Miescher-Melkersson-Rosenthal syndrome period. It is an extremely rare neurological disorder, where the patient experiences recurrent facial weakness or paralysis/palsy, facial swelling and swelling of the lips, most often the upper lip.

Figure 2: Upper lip and perioral area showing swelling and areas of crusting and fissuring



Histiocytes & epitheloid cells

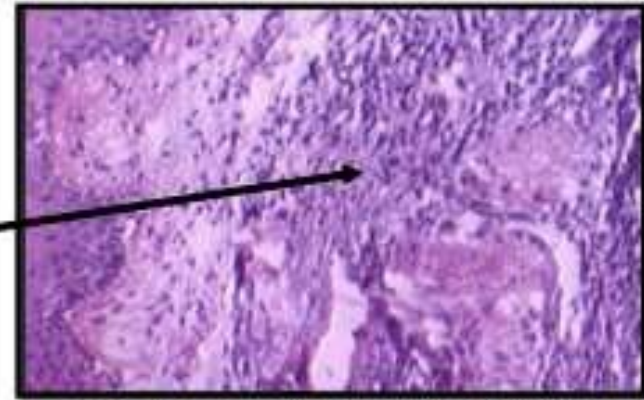


Figure 3: Photomicrograph showing noncaseating granulomatous inflammation with multinucleated giant cells. H & E. 10x.

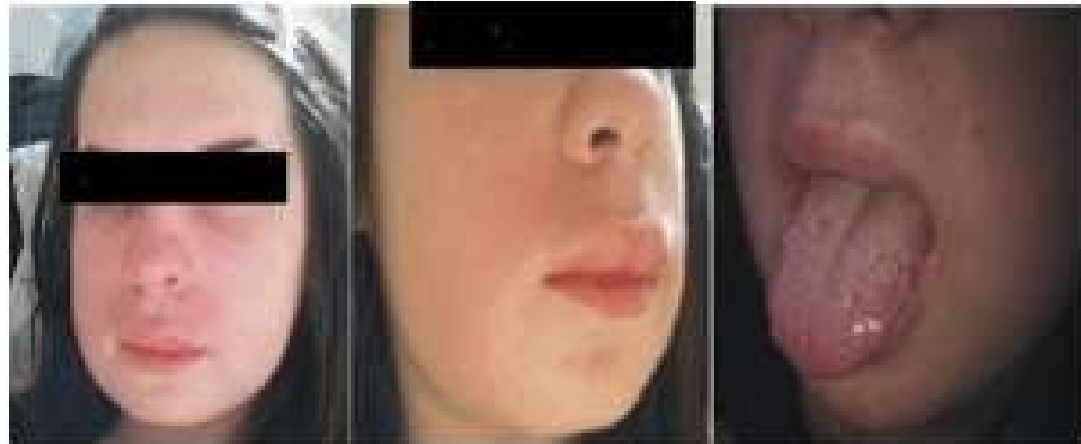



Figure 1 – *Non-painful, swollen upper lip and scrotal tongue (before treatment with local corticosteroids).*



Treatment options for cheilitis granulomatosa

Drug name	Class	Administration
Triamcinolone [7]	Corticosteroid	Intralesional injection 40 mg once per week for 3 weeks
Metronidazole [12]	Nitroimidazole antibiotic	1,000 mg PO daily until clinical response is noted
Clofazimine [8]	Phenelzine dye derivative	100–200 mg PO daily for 3–6 months
Roxithromycin [10]	Macrolide antibiotic	150 mg PO daily until clinical response is noted
Adalimumab [9]	TNF alpha inhibitor	Subcutaneous injection: 80 mg week 1, 40 mg week 2, then 40 mg every other week until clinical response is noted
Combination dapsone and triamcinolone [11]	Folic acid antagonist; corticosteroid	PO dapsone 100 mg daily for 2 weeks followed by 50 mg daily for 25 weeks <i>plus</i> intralesional triamcinolone 10 mg every other week for four injections followed by once monthly for three injections



**THANK YOU**