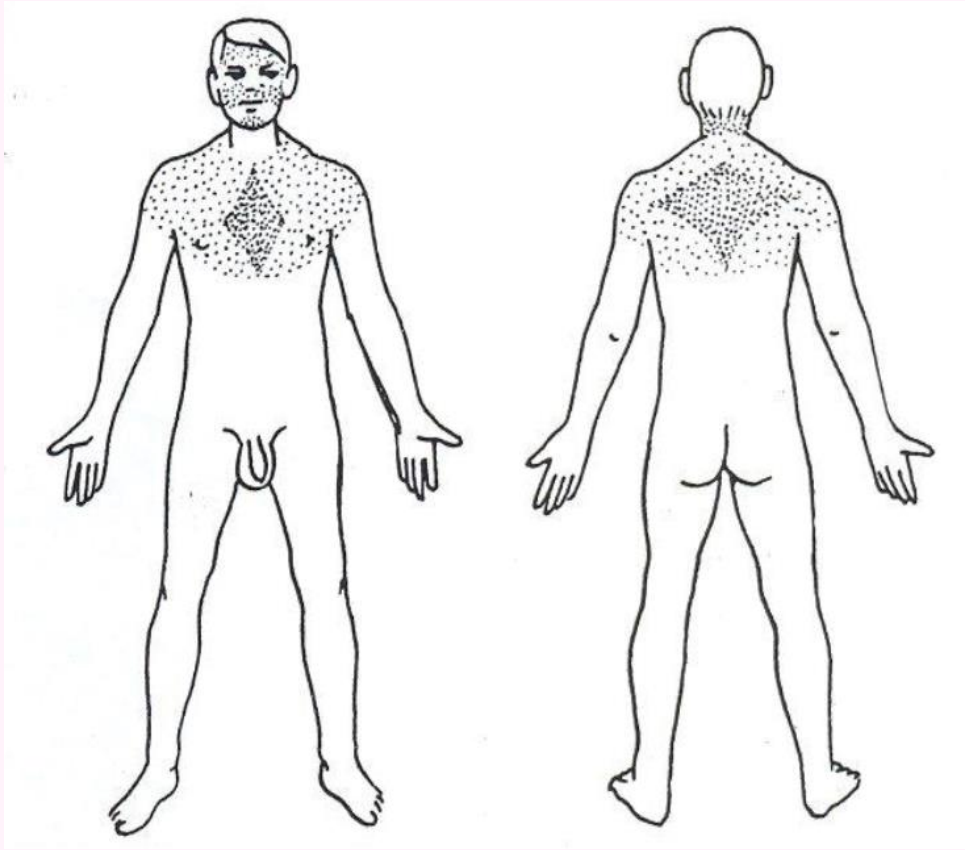
ACNE VULGARIS A ROSACEA

ACNE VULGARIS

- chronic inflammatory disease of the pilosebaceous unit, **usually begins in puberty** and often lasts for several years, sometimes decades, **mainly affects young people** in puberty

- **several factors** contribute to its formation - **increased sebum production, hormonal influences, bacteria, genetics, lifestyle**…

- affects **mainly areas rich in sebaceous glands**, which is the **face, upper back and upper torso**

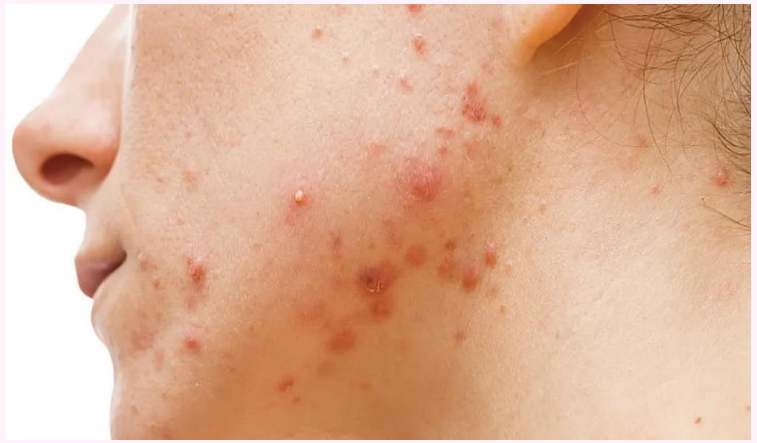


ACNE – ETIOPATHOGENESIS

- the etiopathogenetic basis is **chronic inflammatory process of the pilosebaceous unit**

- **excessive sebum production**, **retention of keratin in the follicles** and colonization by the anaerobic microbe **Cutibacterium acnes** (new name, originally Propionibacterium) with the subsequent formation of **inflammatory mediators** in the follicle and surrounding tissue

- **hormonal effect** - increased sebum production associated with **higher levels of androgens stimulating** the androgen receptors of the **sebaceous glands**



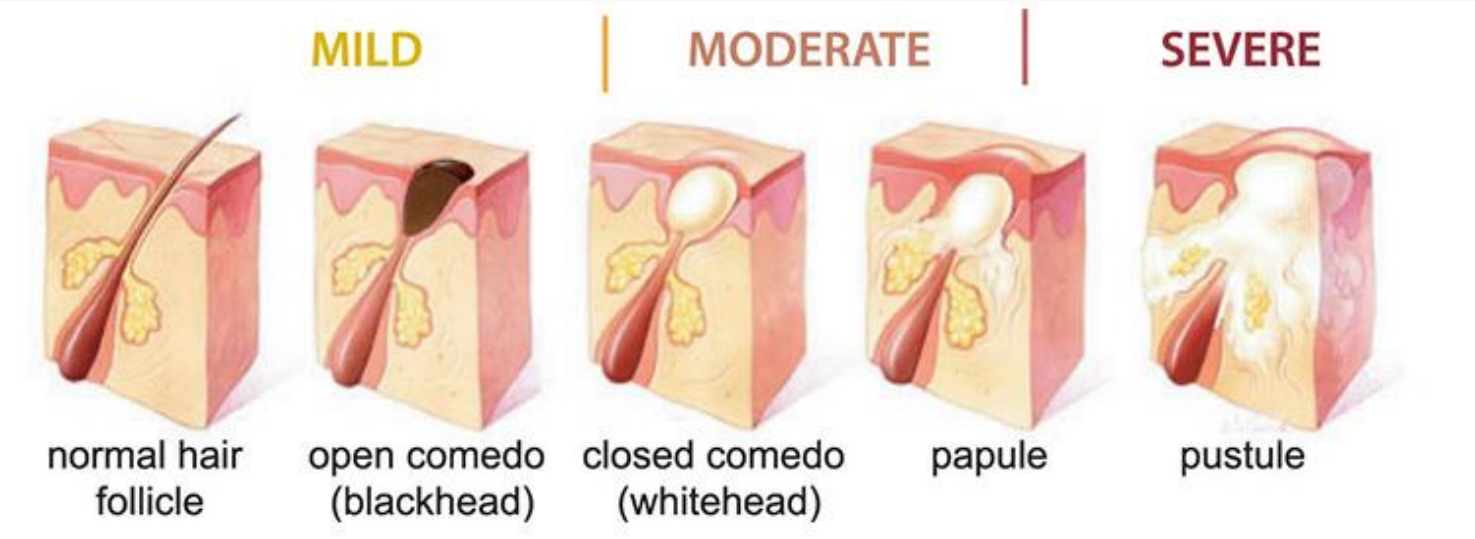
- it is caused by **clogging of the follicle opening**, there are **non-inflammatory** (microcomedones, closed comedones, open comedones) **and inflammatory lesions** (papules, pustules, nodules, cysts)

- hypekeratization causes the formation of **closed comedo**, which is clinically represented by a **small white papule (up to 1 mm)**

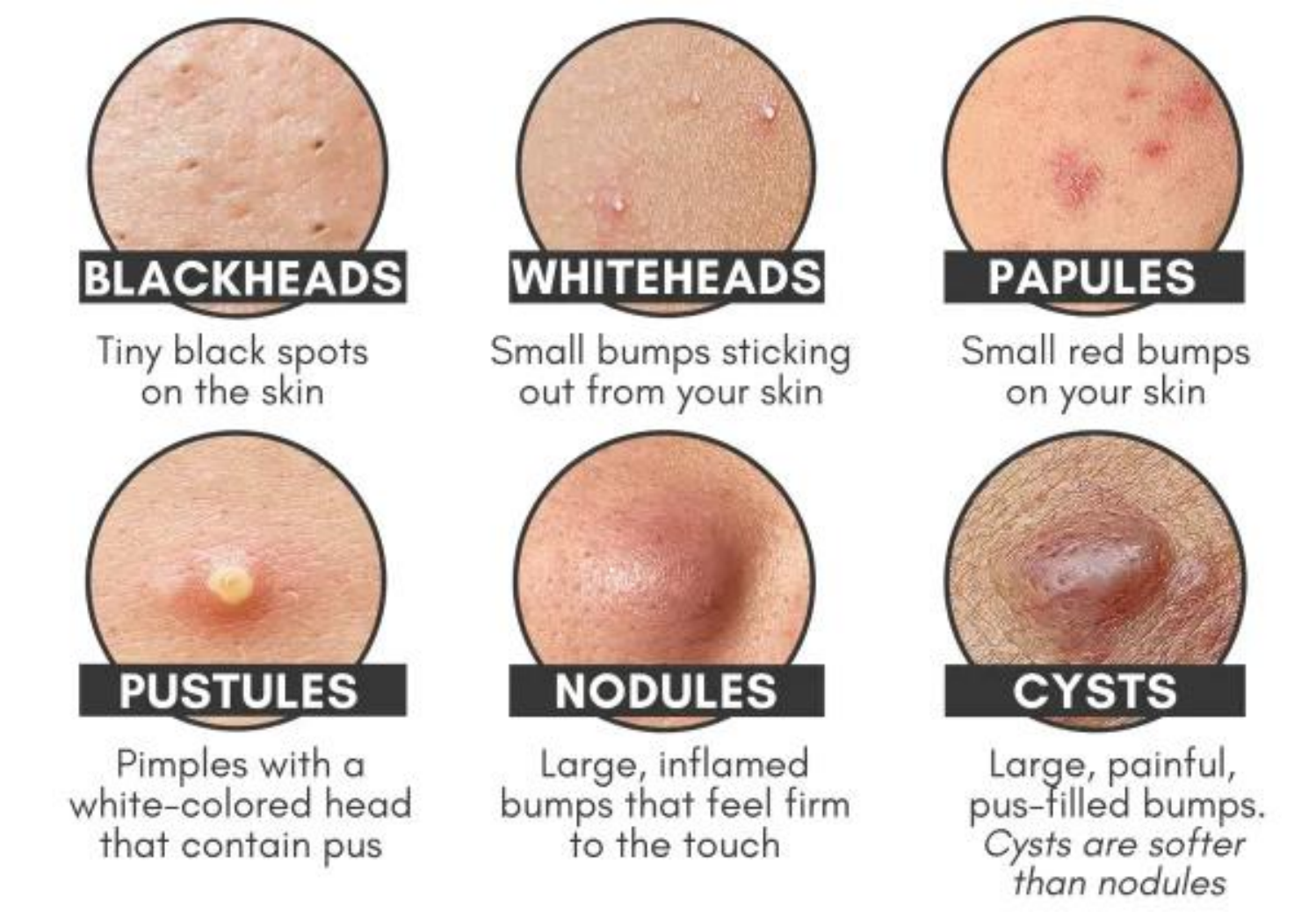
- continued retention of keratin dilates the opening of the hair follicle and the closed comedo becomes an **open comedo** with a black dot in the centre caused by melanin

- **sebum accumulates in the follicle** and **bacterial saprophytic flora**, especially Cutibacterium acnes and Staphylococcus epidermidis lead to **overproduction of unsaturated fatty acids, which have comedogenic and chemotactic effects**

- **the growing comedo increases pressure in the closed follicle, breaks its wall**, attracts polymorphonuclear cells, **causes inflammation and the formation of inflammatory papules, papulopustules, nodules, abscesses and fistula with scarring**

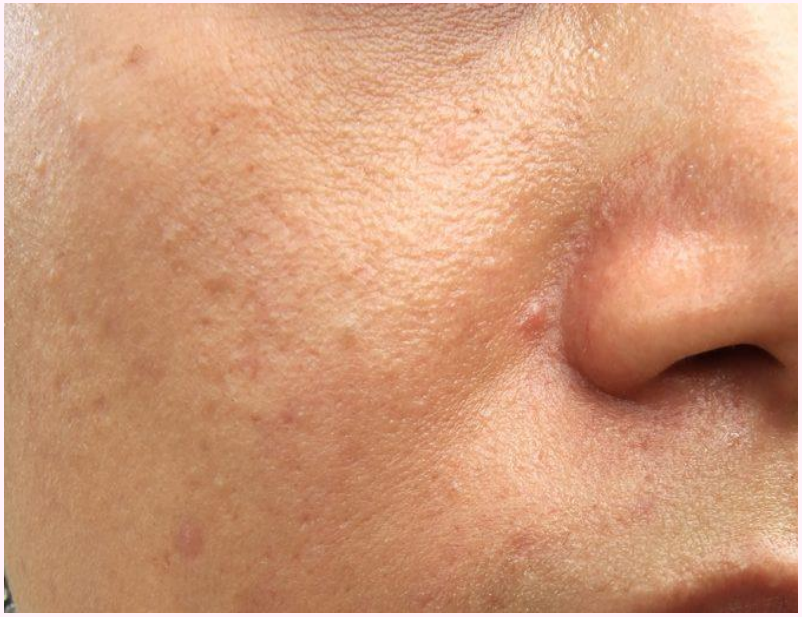


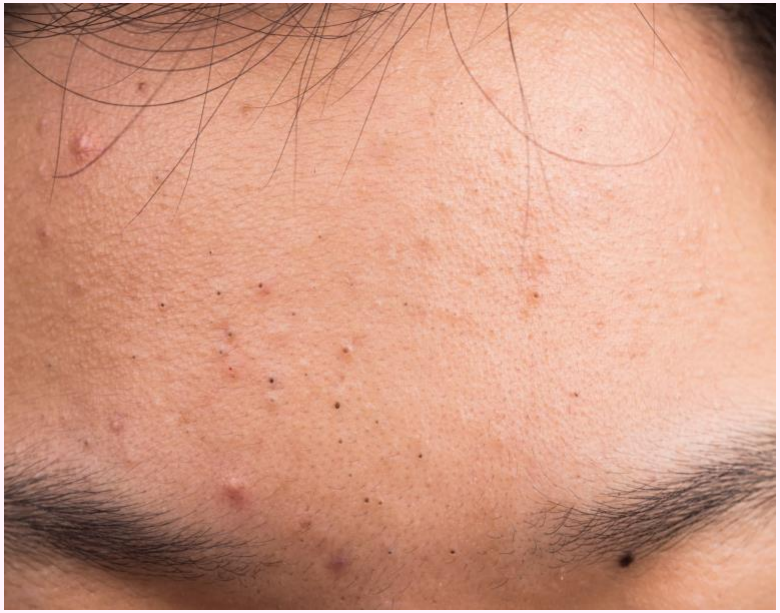
ACNE - CLINICAL REPRESENTATION



1. ACNE COMEDONICA

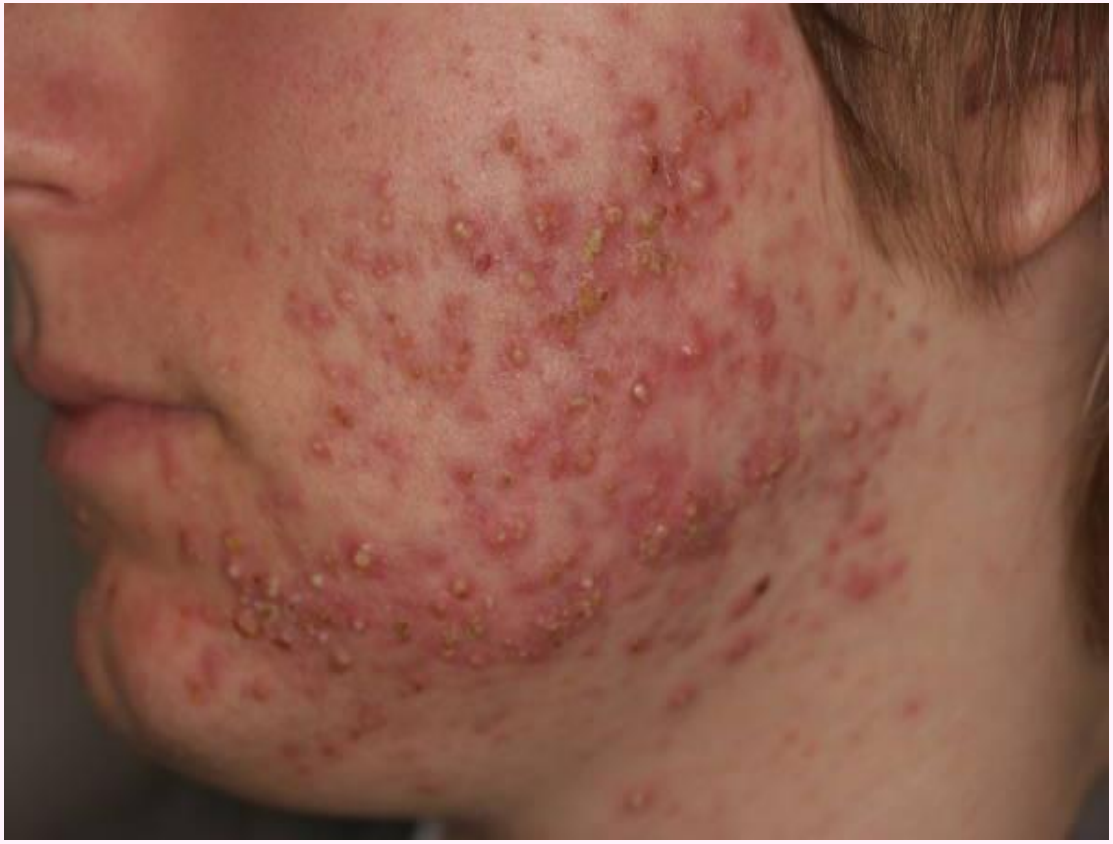
- represents the **mildest form of acne** with predominantly **open and closed comedones**, only with isolated papulopustules





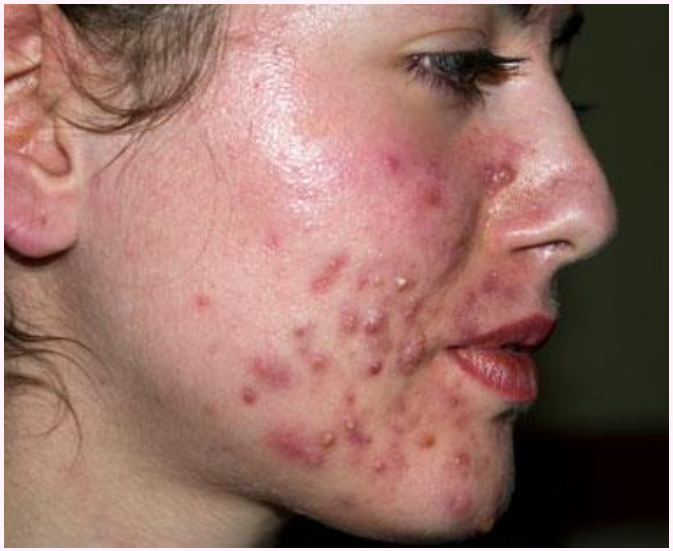
2. ACNE PAPULOPUSTULOSA

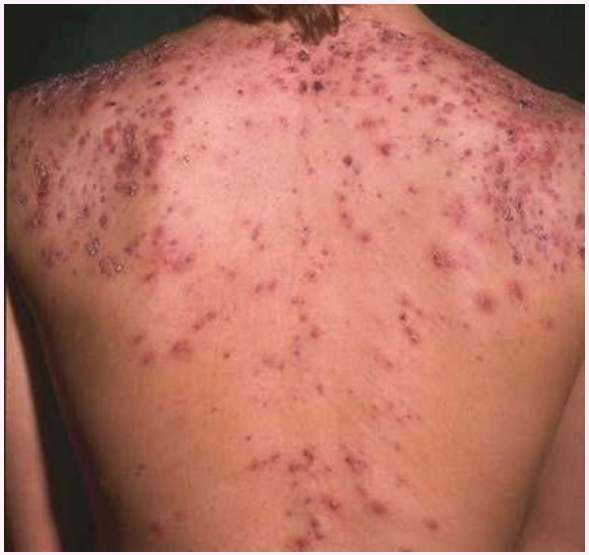
- predominantly **red papules, pustules and papulopustules**, **sometimes** leaving **small scars**



3. ACNE NODULOCYSTICA

- formation of **painful bumps with fistulas and purulent secretion**
- there is **prominent, sometimes keloid scarring** (acne keloidea) and the formation of **epidermoid cysts** from repeated damage to the follicular epithelium, mostly with a prominent central pore, which **rupture easily and cause inflammation**
- **the chest and upper back are often also affected** along with the face

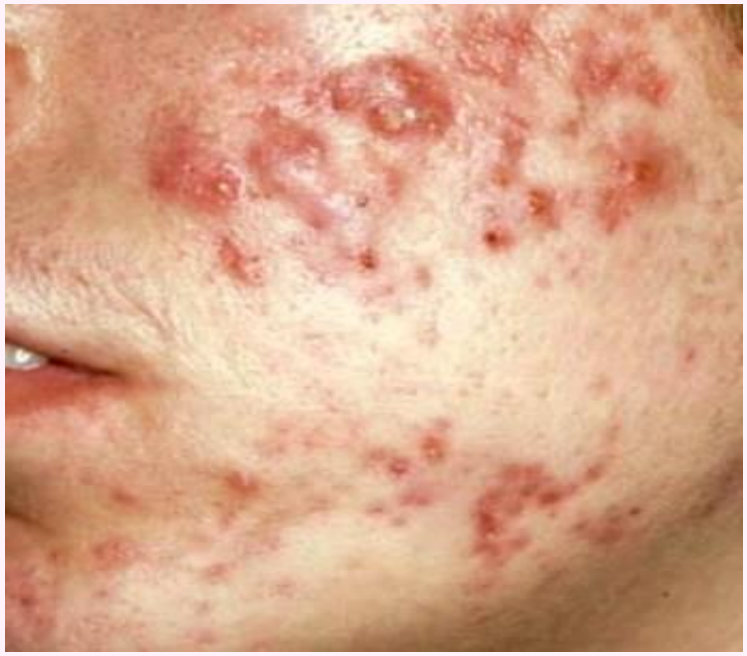


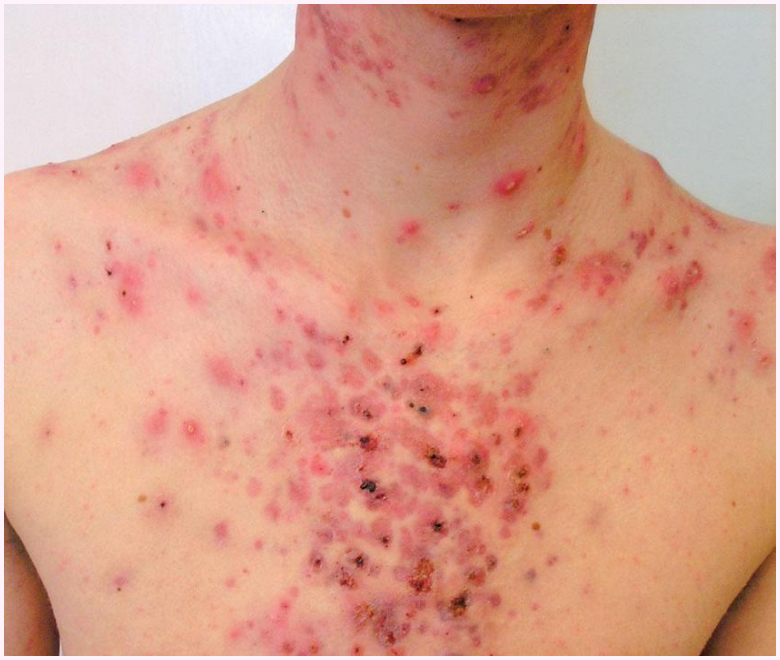


4. ACNE CONGLOBATA

- **severe form** of acne, which is found **more often in men**, is caused by **merging of inflammatory bumps and abscesses - formation of fistulas and extensive atrophic and hypertrophic scars**

- **mainly on the chest, back, shoulders**, sometimes on the arms and buttocks, the face is less affected

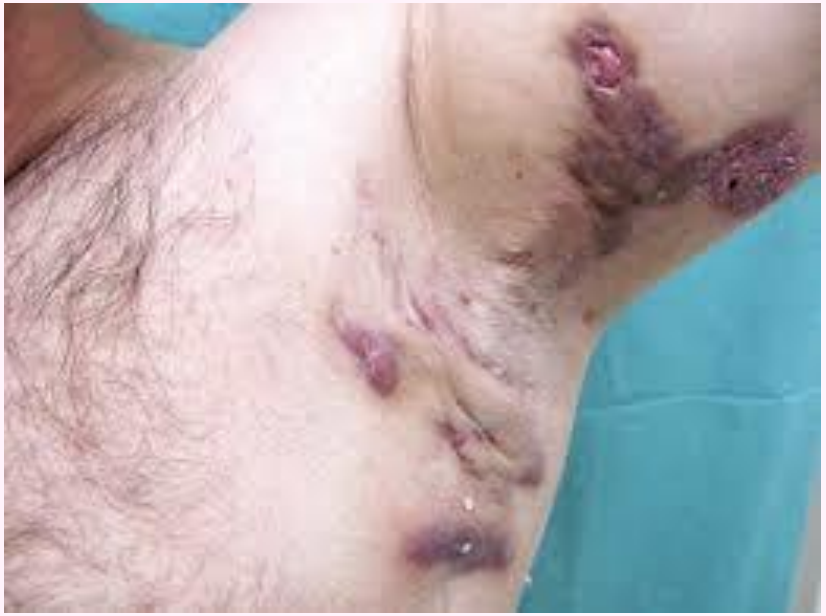


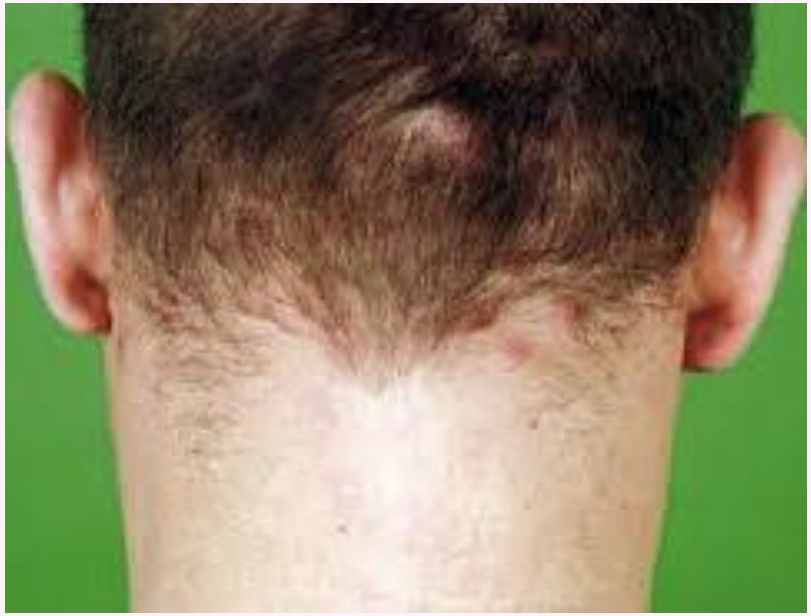


4. ACNE CONGLOBATA

- may also occur **along with hidradenitis suppurativa**, abscesses of the scalp and neck with scarring alopecia (perifolliculitis capitis abscedens et suffodiens, folliculitis dissecans) and inflammation of the pilonidal sinus - **ACNE TETRADA**

- **ACNE INVERSA** also falls under this category - it affects **intertriginous areas**

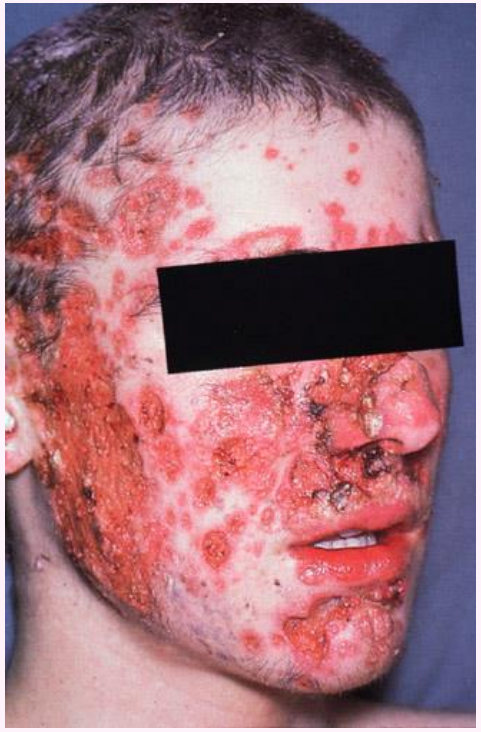


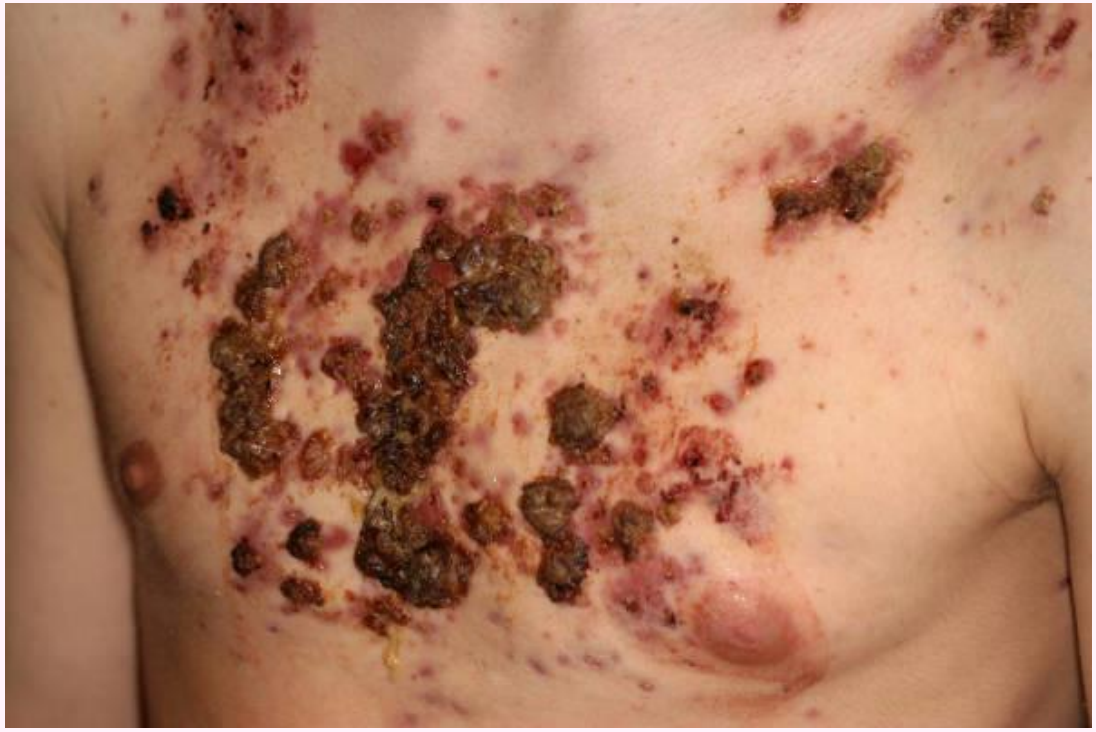


5. ACNE FULMINANS

- **severe accute febrile ulcerative form** of acne nodulocystica **with fever, leukocytosis, swelling and joint pain,** sometimes sterile osteomyelitis (most often sternoclavicular joint)

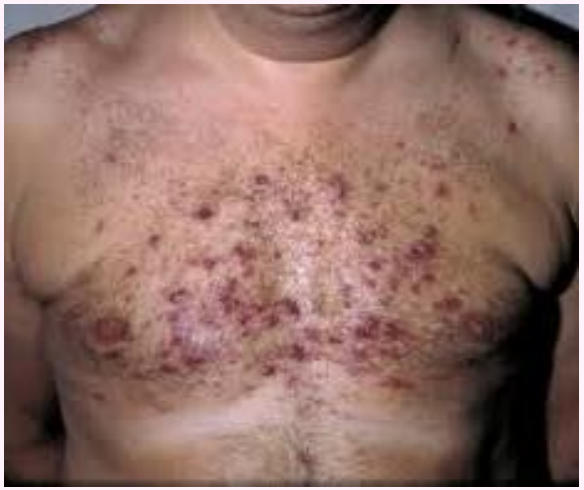
- requires hospitalization, administration of total corticoids, antibiotics, followed by oral isotretinoin

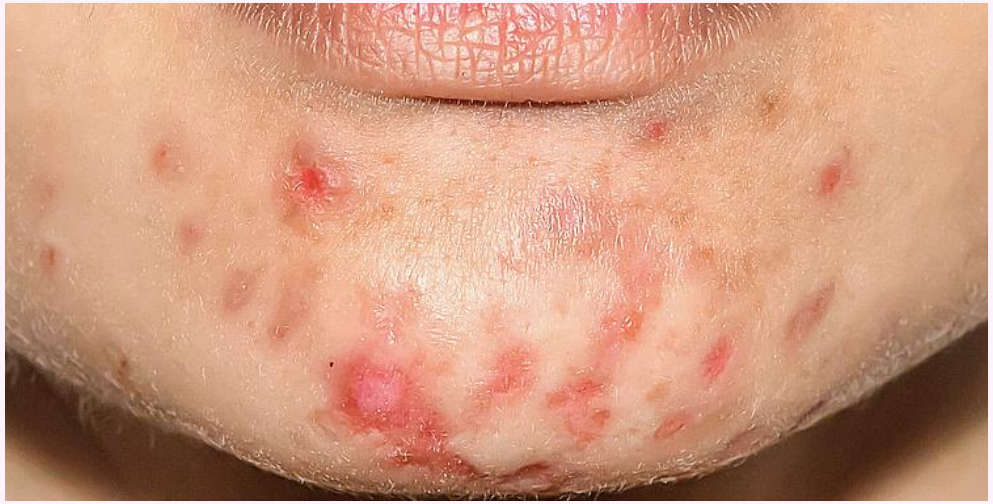




SPECIAL TYPES OF ACNE

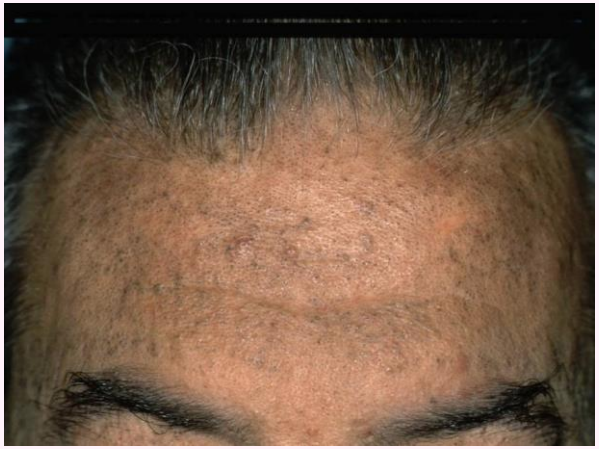
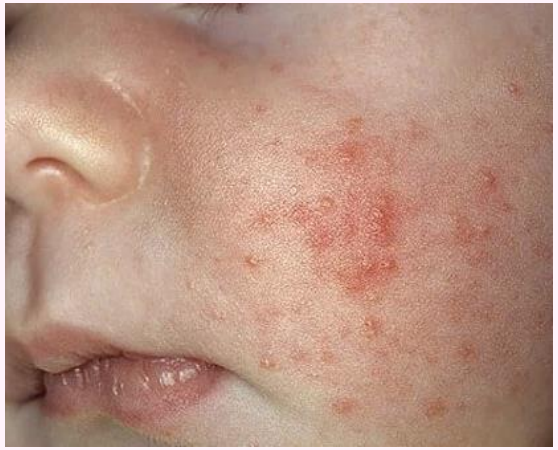
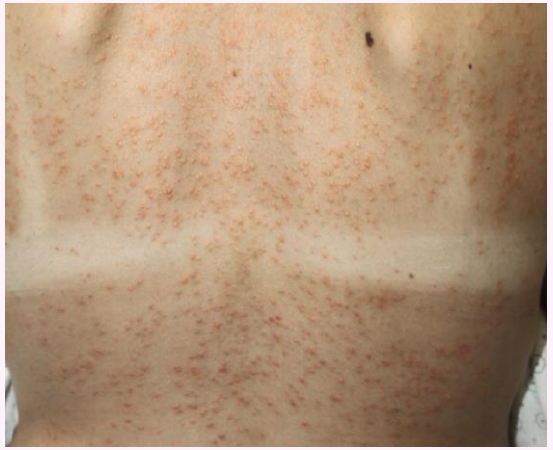
- **acne mechanica:** created by friction - headbands, hats, facemasks
- **acne medicamentosa:** most often from corticosteroids - acne steroidea, from halogenated hydrocarbons bromine acne, chloracne, vitamin B12, isoniazid; PUVA ap.
- **acne excoriata**: in young women with excoriations from constant squeezing, psychotherapy is often required





SPECIAL TYPES OF ACNE

- **acne cosmetica:** caused by comedogenic ingredients in cosmetics
- **acne venenata:** contact acne (from contact with mineral oils - acne oleosa, acne picea due to pix lithanthracis application
- **acne neonatorum:** caused by androgens transmitted from the mother
- **acne aestivalis (so-called Mallorca-acne):** caused by follicular hyperkeratosis induced by the sun

LOCAL TREATMENT

We use drugs with comedolytic, anti-inflammatory, antibacterial and antiseborrheic effects:

- **local retinoids** - tretinoin (magistraliter), adapalen (Differine cream)
- **azelaic acid** (Skinoren cream)
- **benzoyl peroxide** (Akneroxid gel)
- **topical antibiotics** - erythromycin (Zineryt solution), clindamycin (Dalacin T solution)
- **various combinations** - adapalene + benzoyl peroxide (Epiduo gel), clindamycin + benzoyl peroxide (Duac gel), clindamycin + isotretinoin (Acnatac) ....
- **NEW DRUG clascoterone (Breezula) - the first topical antiandrogen to treat acne (so far only in the USA)**

SYSTEMIC TREATMENT

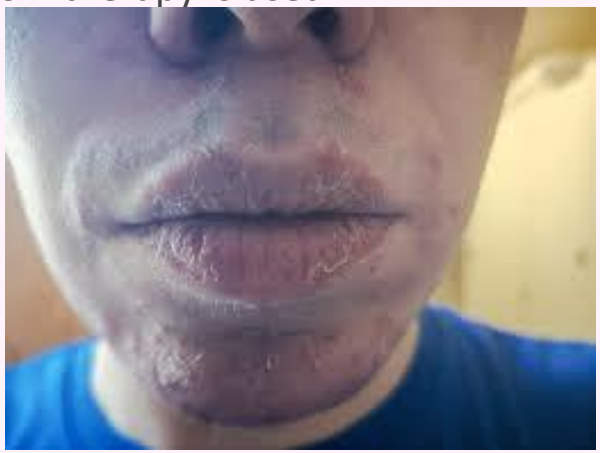
- **antibiotics (tetracycline, doxycycline):** long-term use (months) in a dose sometimes lower than recommended for infections

- **hormonal contraception:** in women, especially when there is worsening of acne symptoms during the menstrual cycle, antiseborrheic effect, most commonly used in combination , e.g. **ethinyl estradiol and cyproterone acetate** (Diane 35)

- **spironolactone**: diuretic, acts as an antiandrogen, blocks androgen receptors and inhibits 5-alpha reductase, reduces sebum production and thus improves acne, the use in this indication is **OFF-LABEL**

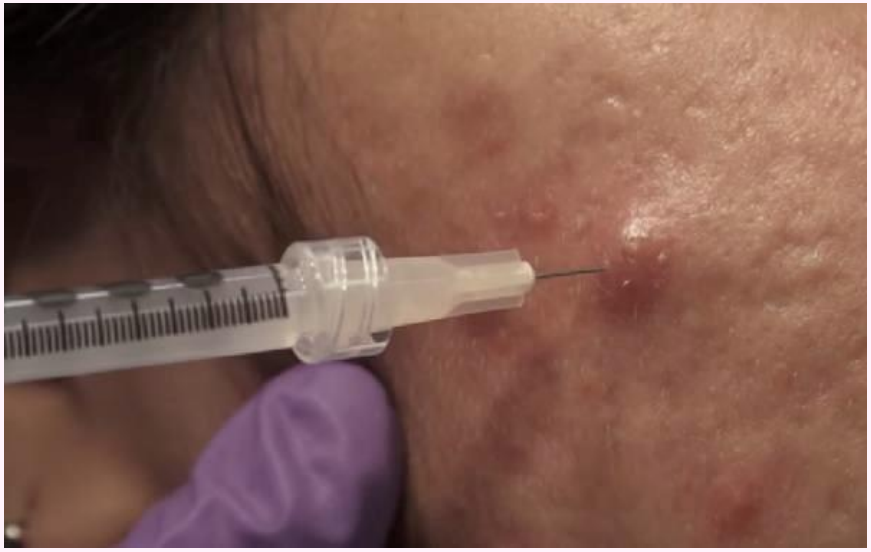
- **retinoids - isotretinoin (13-cis-retinoic acid)**
  - for more severe or unresponsive forms
  - most often at a dose of 0.5-1 mg / kg / day for several months to a year, depending on the tolerance of the daily dose, **the total cumulative dose should be 120 mg/kg body weight**
  - **the effect of the treatment is usually long-lasting**
  - causes a **decrease in sebum production**, sebaceous glands get smaller, increases the differentiation of keratinocytes with a consequent **reduction in follicular hyperkeratosis** and has a weak anti-inflammatory effect
  - T**ERATOGENIC** - hormonal contraception has to be given one month before the start and three months after the end of treatment to women with childbearing potential
  - **side effects -** cheilitis sicca (**peeling and cracking of the lips**), **dryness of the skin and mucous membranes**, **increased levels of lipids** (especially triacylglycerol), sometimes elevation of liver tests, rarely musculoskeletal problems

- **corticoids** in acne fulminans due to the acute inflammatory response at the beginning, after the acute phase is over isotretinoin therapy is used

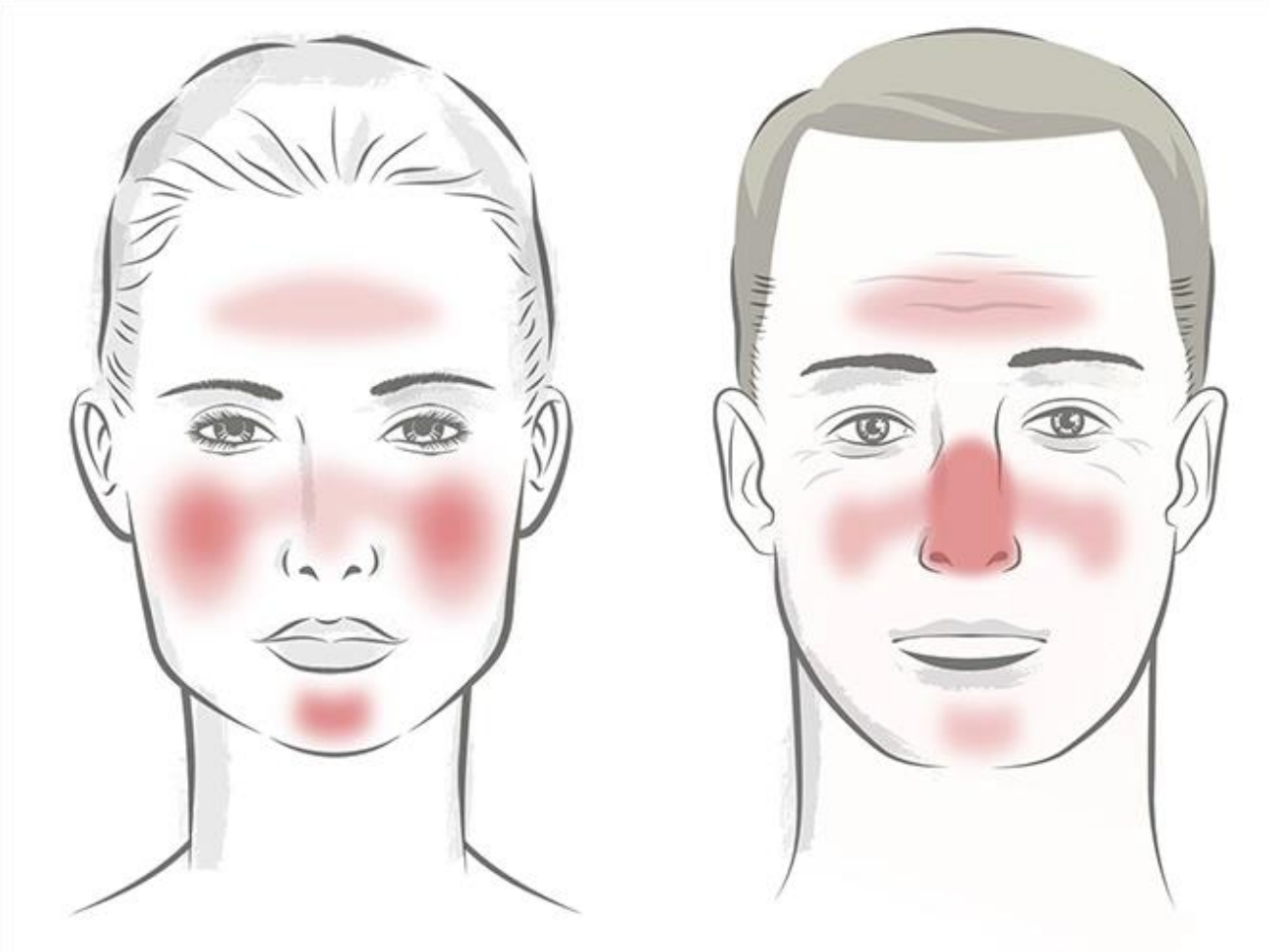


ADDITIONAL TREATMENT

- **surgical treatment** - excision, incision
- **intralesional application of corticoids -** to epidermoid cysts
- **dermabrasion, C02 laser, chemical peeling** - scar treatment
- **dermatocosmetics, skin cleansing, hydration, maintaining a healthy epidermal barrier**
- **stress elimination, psychotherapy**
- **adjustment of diet and lifestyle**
  - still requires a lot of research, but it should no longer be believed that the link between diet and acne is a myth
  - zinc, vitamin A, probiotics, omega-3-MK can have a positive effect...
  - industrially processed foods with a high GI, dairy products... can have a negative effect
  - patients should keep a food diary to find out which dietary factors cause acne flare-ups

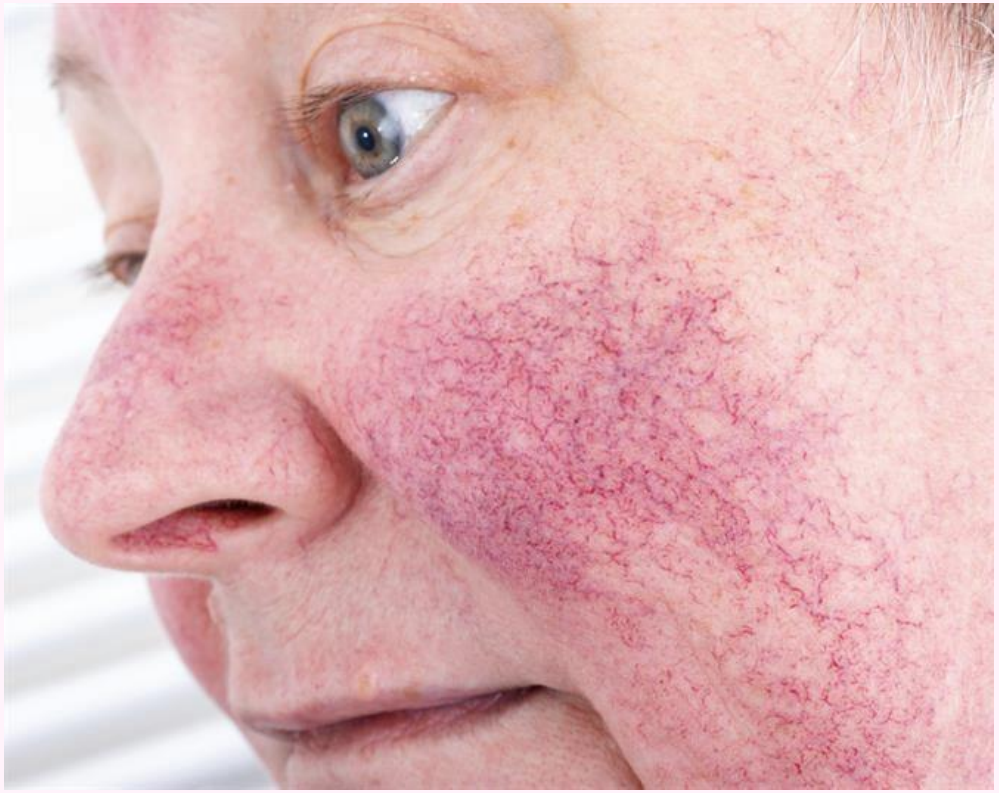


ROSACEA



ROSACEA

- chronic inflammatory disease of the follicles with localization on the face (**centrofacially**)
- characterized by **initial erythema with telangiectasia, progressing to papulopustules and later to hyperplasia of fibrous tissue and sebaceous glands of the nose** (rhinophyma)
- affects people between the ages of 30 and 60, the highest frequency is **after the age of 50, more in women**, the population is affected by 5–22%

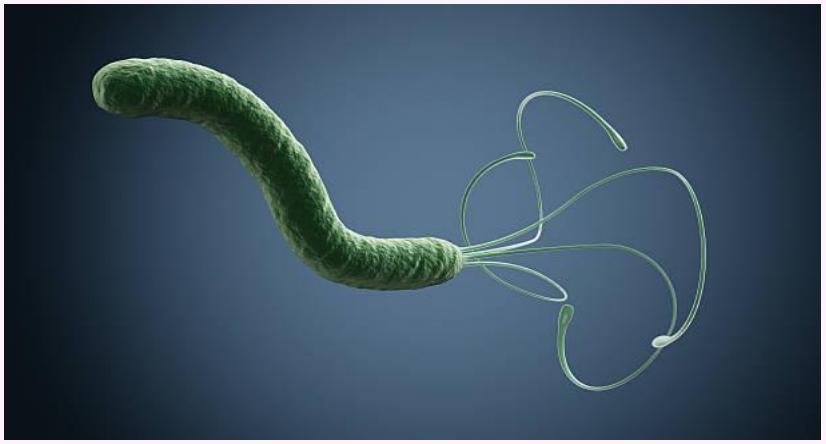


ROSACEA – ETIOPATHOGENESIS

- **multifactorial** - external and internal factors

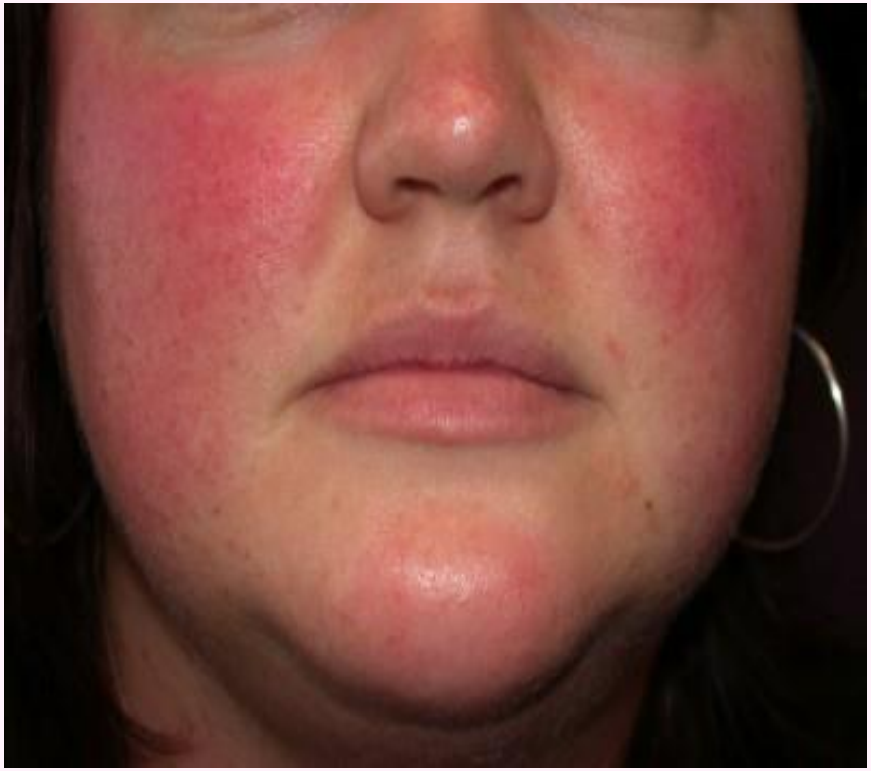
- **genetic predisposition** - especially a **disorder of innate immunity**, congenital vasomotor lability of the face - **vascular hyperreactivity**
- role of **Demodex folliculorum**
- gastrointestinal diseases - **Helicobacter pylori**

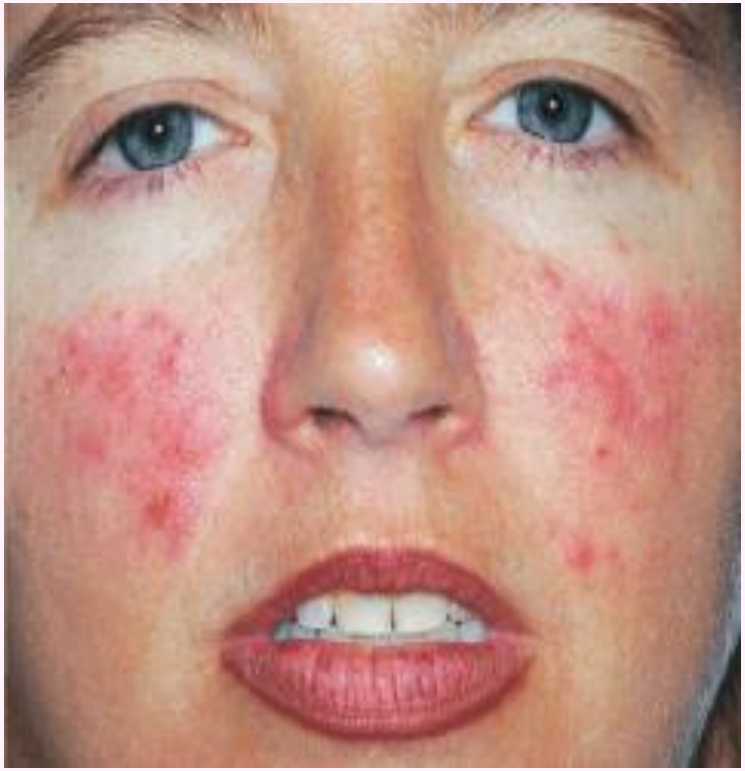
- the disease is **exacerbated by a number of external factors,** especially those causing facial redness **(hot drinks, spirits, temperature changes),** niacin, local corticoids and especially **ultraviolet radiation!**

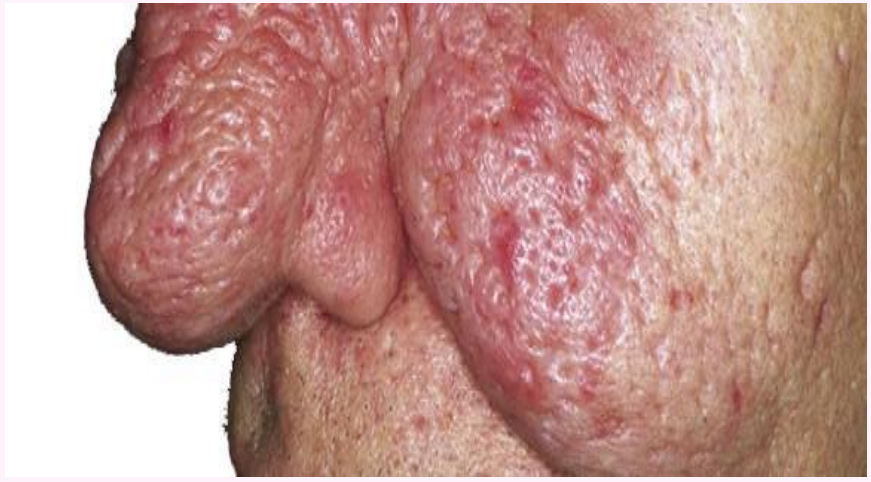


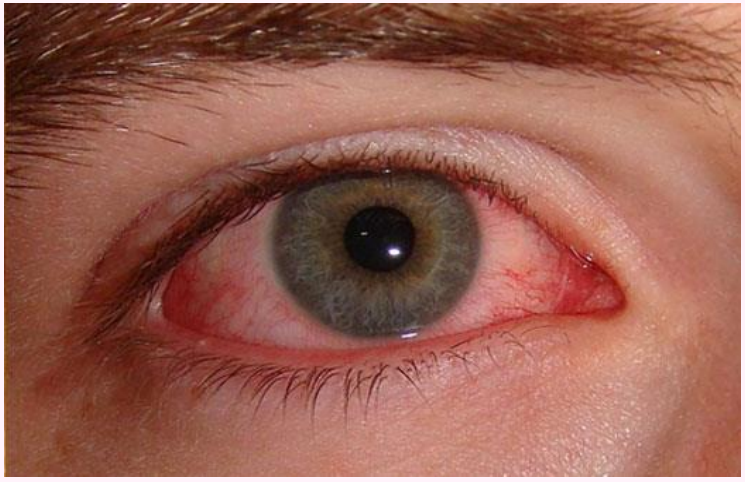
ROSACEA – CLINICAL PRESENTATION

- typically affects the **nose, cheeks, center of the forehead and chin**, exceptionally occurs on the neck, retroauricularly, in the neckline
- usually **omits periorbital and periorbital skin**
- **initially inconspicuous manifestations - transient erythema of the center of the face** after provocation by emotions, hot drinks, the sun, etc.
- **persistent erythema develops gradually with telangiectasia** (stage 1)
- **later red papules and papulopustules form** (2nd stage)), unlike in acne, comedones are missing
- in addition, **inflammatory nodules and infiltrates may form accompanied by hyperplasia of the sebaceous glands and fibrosis** leading to thickening and thickening of the skin - **phyma** (stage 3)



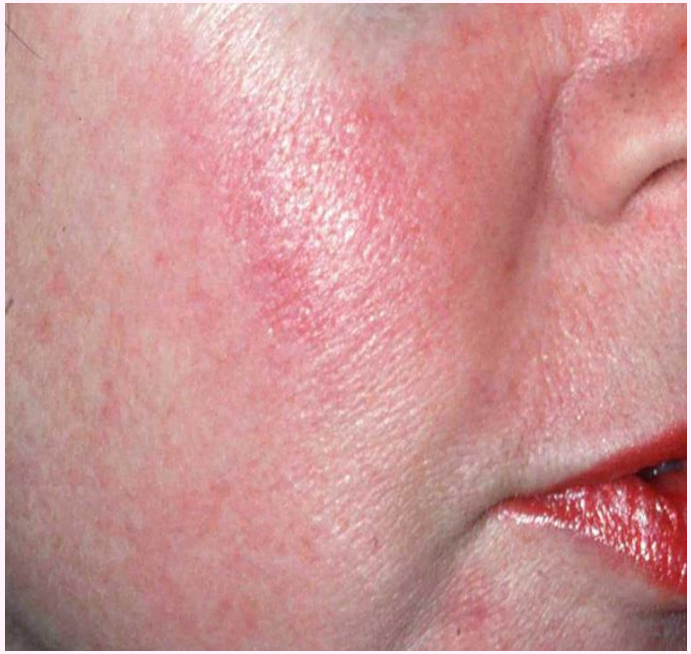


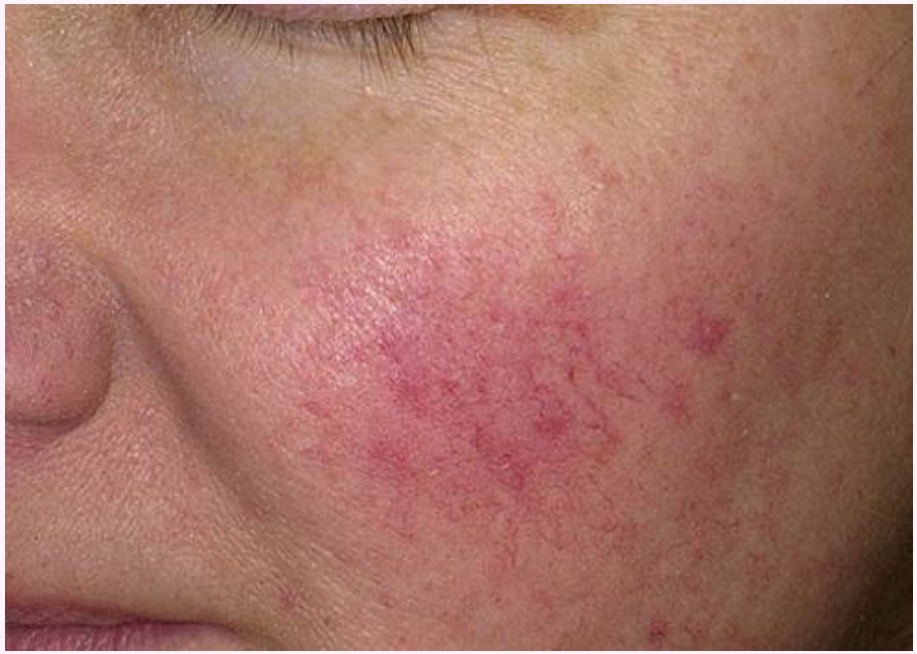




1. SUBTYPE – ROSACEA TELEANGIECTATICA

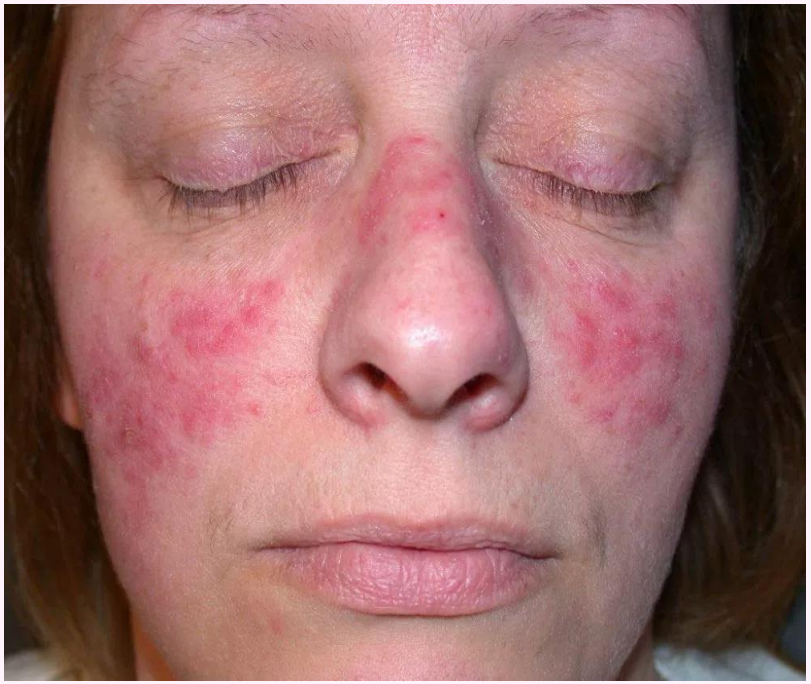
- first, early stage, synonyms: ***erythrosis, rubeosis, couperosis***
- **vascular form** - erythematoteleangiectatic rosacea
- **transient erythema (flushing)**
- **later permanent centrofacial redness accompanied by telangiectasias, centrofacial edema, burning and stinging**

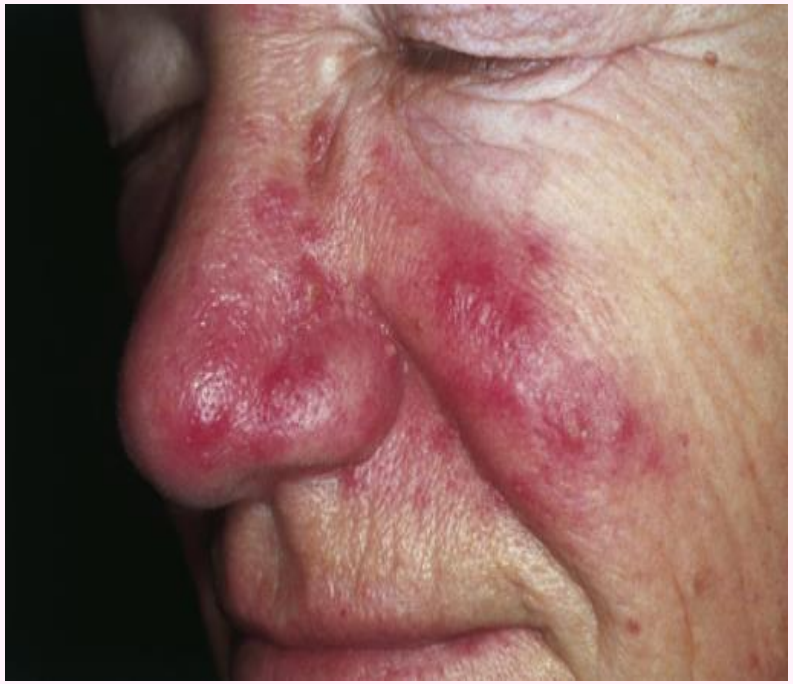


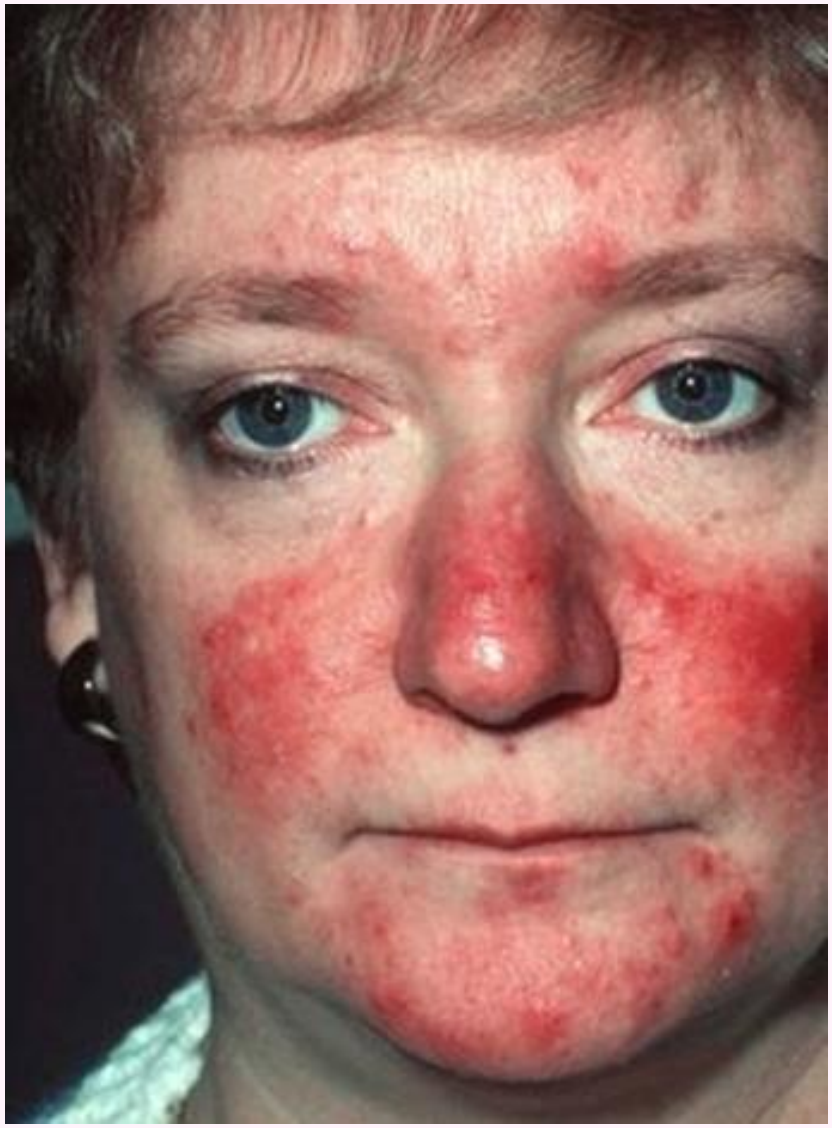


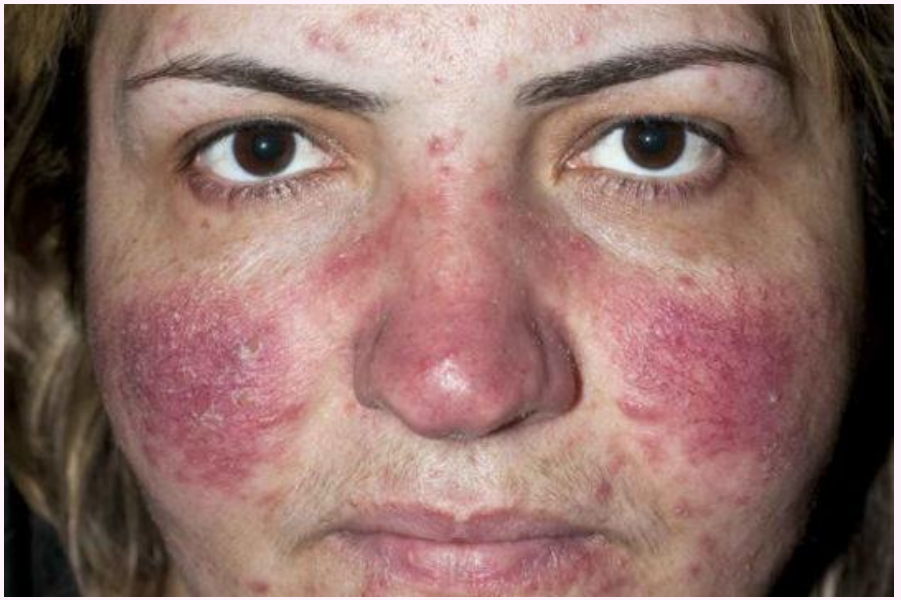
2. SUBTYPE – ROSACEA PAPULOPUSTULOSA

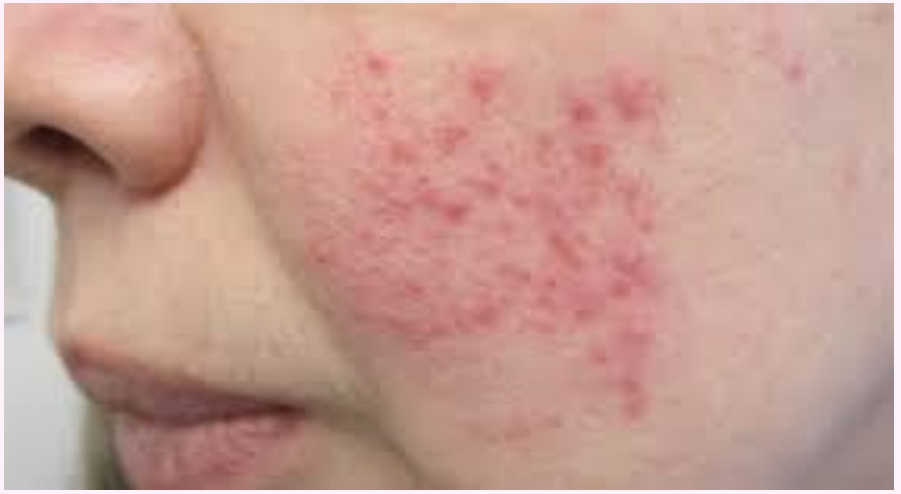
- **second stage**
- **inflammatory form** - papulopustular rosacea
- **papules to papulopustules on permanently reddened skin**
- papules and pustules **in the central part of the face, both periorbital, perinasally and periorally**







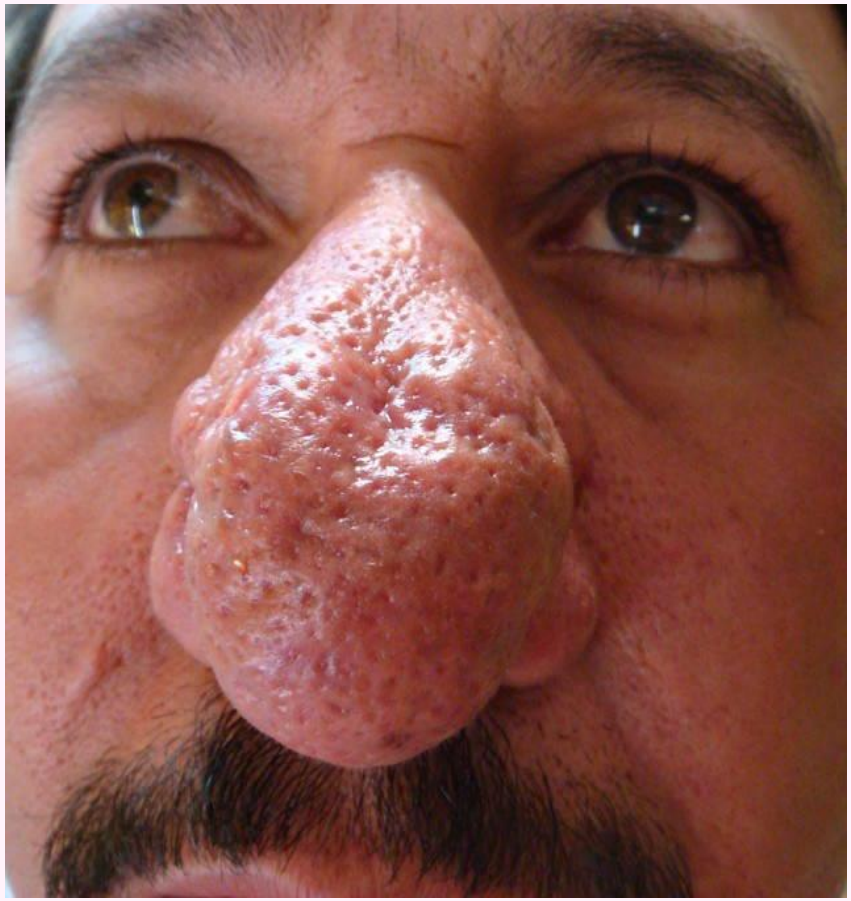


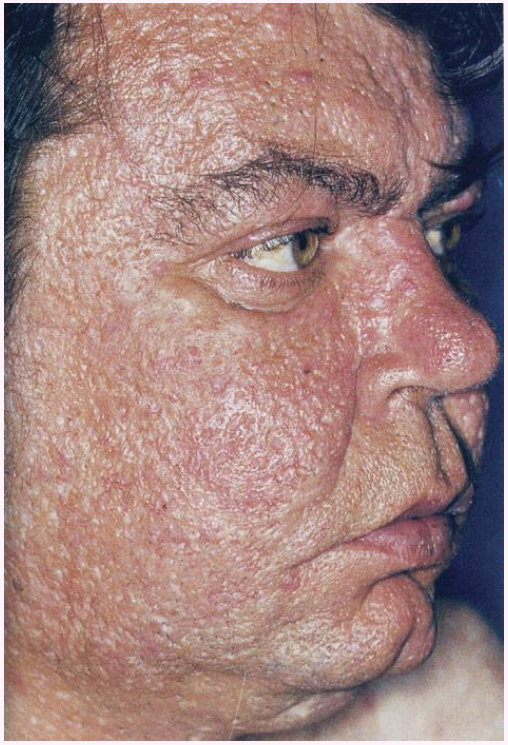
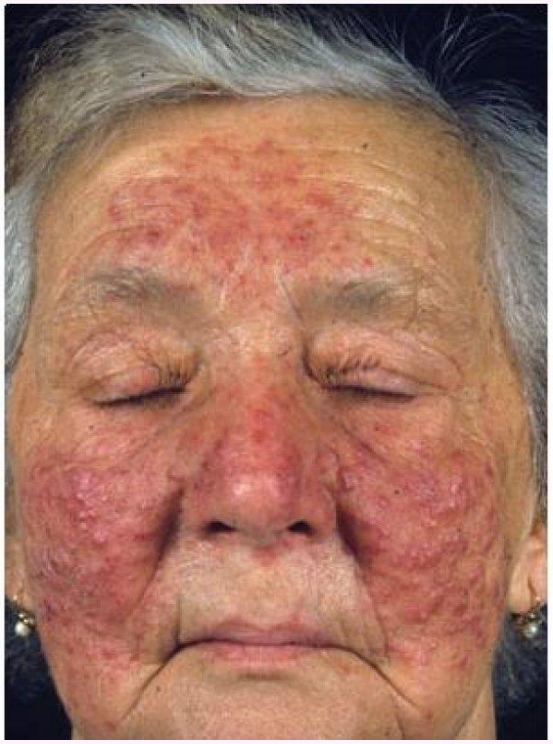


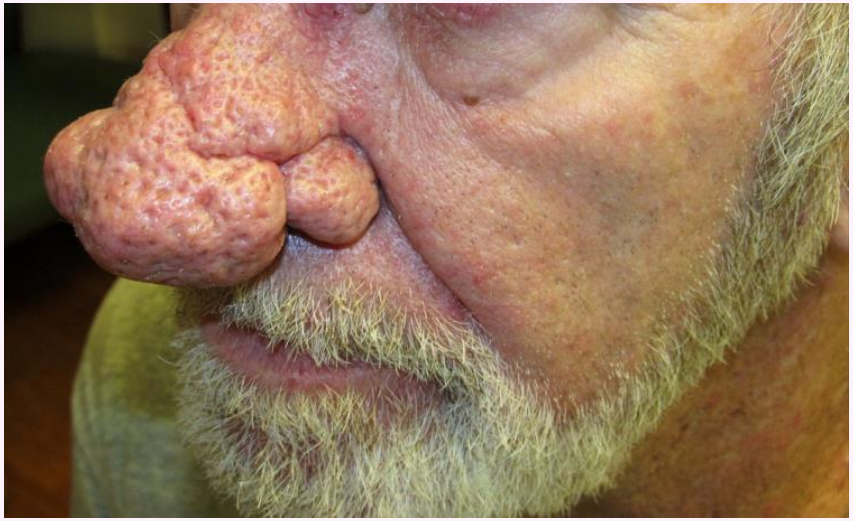
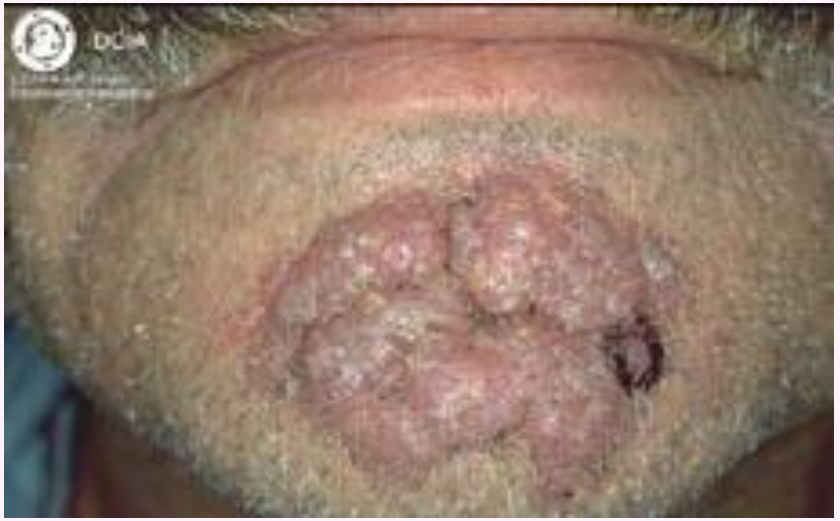
3. SUBTYPE – ROSACEA HYPERPLASTICA

- third stage
- **severe, hyperplastic form - phymatous rosacea**
- formation of large, **inflammatory lesions, bumps, abscesses** and oedematous skin with large pores
- **enlargement of the fibrous tissue and the sebaceous glands**
- the result is seborrhea, thickening of the skin to a cauliflower-like swelling:

- **Rhinophyma** - on the nose
- **Gnatophyma** - on the chin
- **Metophyma** - on the forehead
- **Otophyma** - on the earlobes
- **Blepharophyma** - on the eyelids

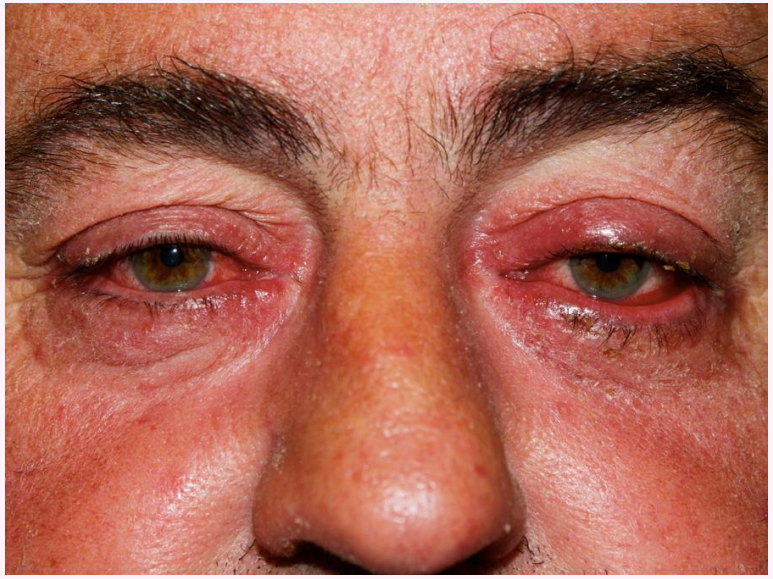


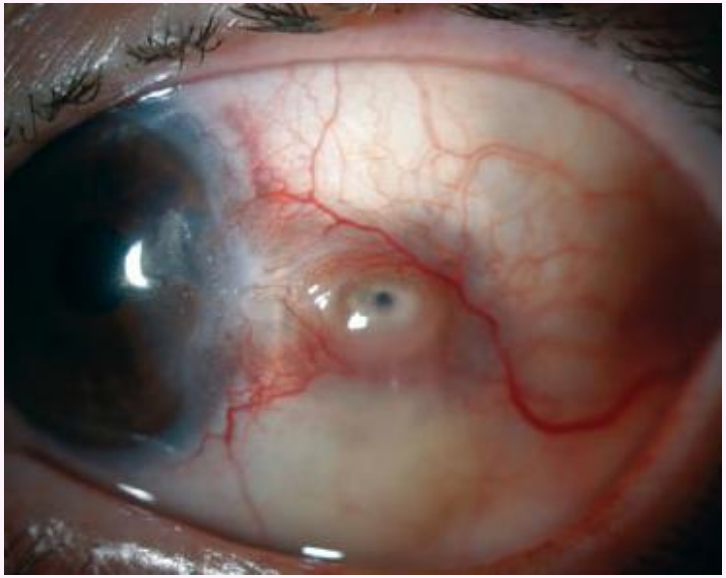



4. SUBTYPE - OCULAR ROSACEA

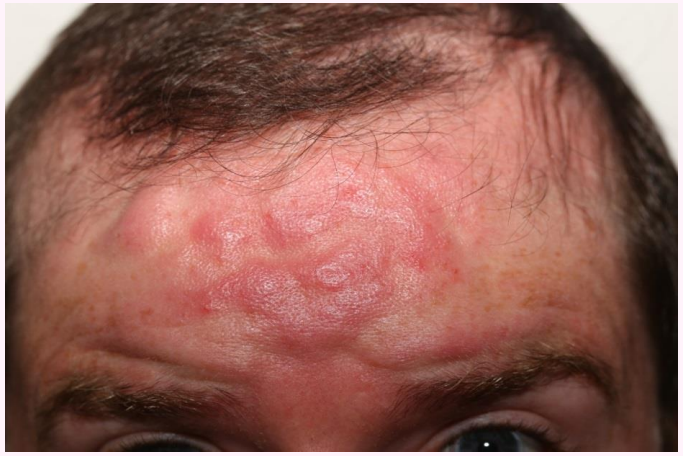
- **up to 60% of patients with rosacea have ocular complications** - **most often manifested by red conjunctiva**
- in about 20% of cases it precedes skin symptomatology
- **clinically there is conjunctival hyperemia, telangiectasia, eyelid edema, periorbital edema, blepharitis**, blepharoconjunctivitis, keratitis, chalazion, hordeolum
- **sight disturbances may occur** due to corneal complications such as keratitis punctata, marginal keratitis and ulcus cornee



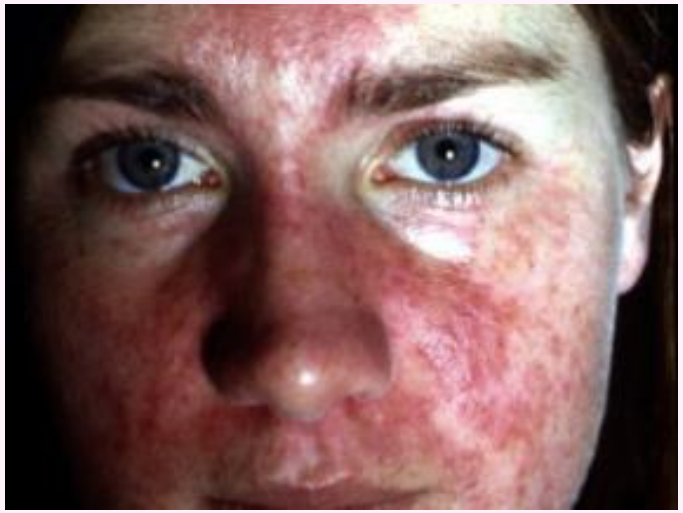


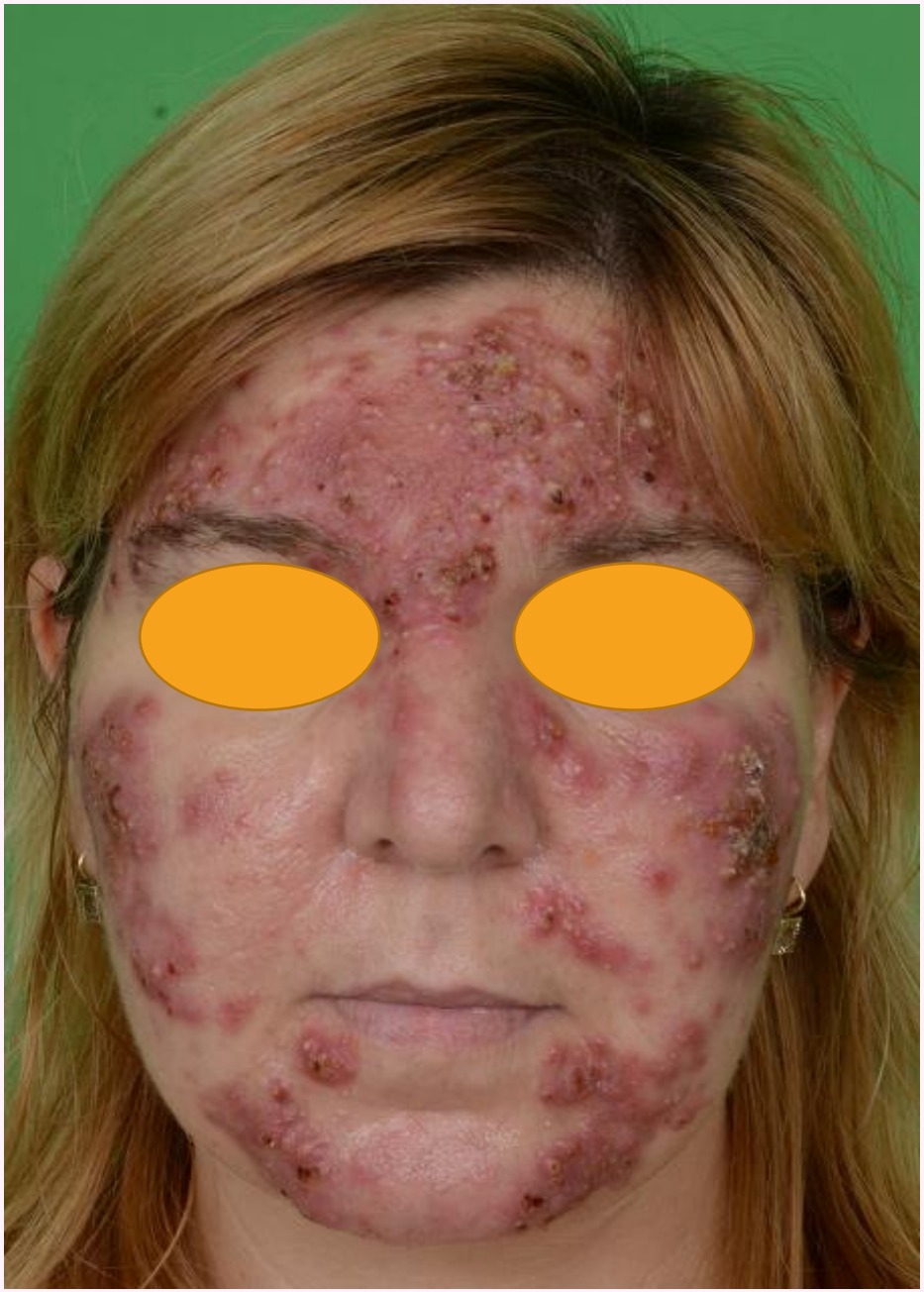
SPECIAL TYPES

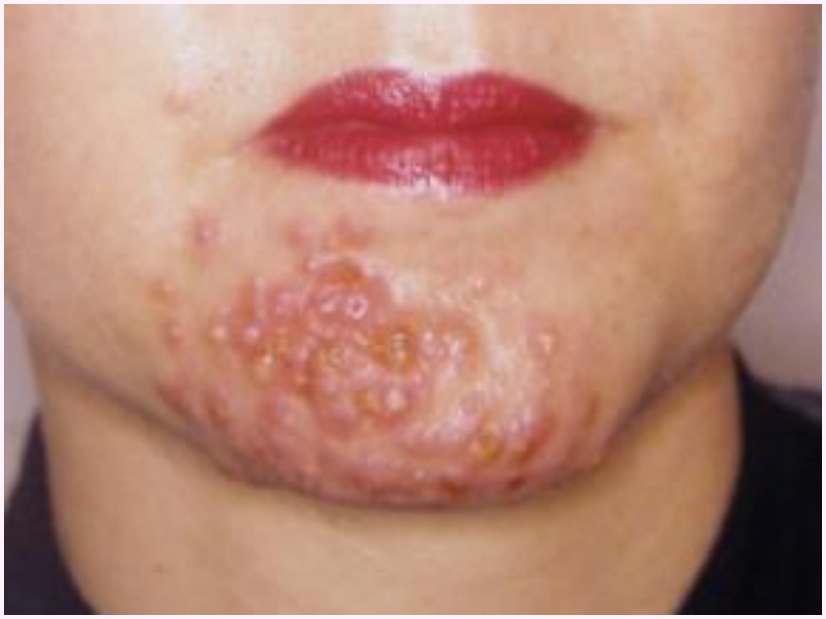
- **rosacea fulminans (facial pyoderma)**
- **rosacea conglobata** - picture 1
- **steroid rosacea - papular rosacea:** picture 2, often formed after steroids, typical small red papules to nodules

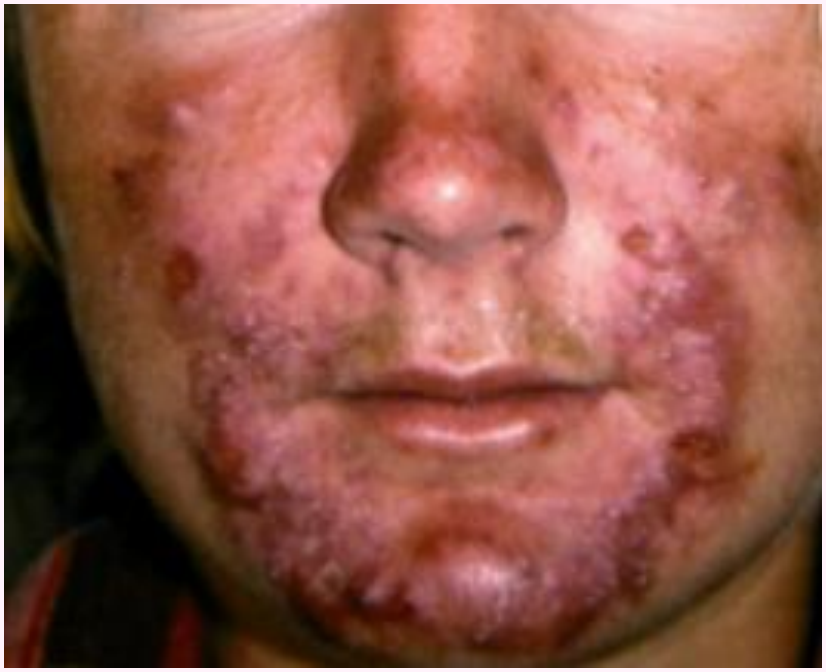


- gram-negative rosacea
- halogen rosacea
- persistent edematous rosacea
- lymphedematous rosacea (persistent solid facial edema - morbus Morbihan)









ROSACEA – LOCAL TREATMENT

- **metronidazole** (Rosalox cream, Rozex gel, magistraliter preparations), **ivermectin** (Soolantra cream), **preparations with sulfur** - *anti-inflammatory effect, reduce Demodex folliculorum*
- **erythromycin, TTC paste** - *anti-inflammatory effect*
- **topical retinoids** - *for papulopustular forms, use according to tolerance, risk of greater redness*
- **azelaic acid** - *anti-inflammatory effect, antioxidant effect*
- **brimonidine** (alpha receptor agonist, Mirvaso gel) - *reduces redness, the effect after application is temporary*

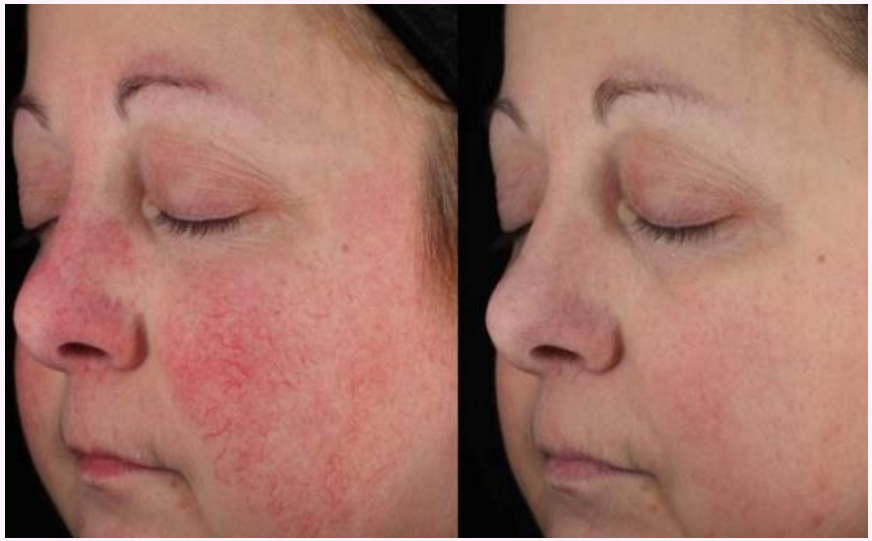
ROSACEA – SYSTEMIC TREATMENT

- **antibiotics** - **TTC, azithromycin, metronidazole** - for several weeks in a dose similar to acne
- **isotretinoin** - in severe cases or resistance to treatment, at a dose of 0.2-1 mg /kg/day given for 3-4 months
- **eradication of Helicobacter pylori** (with current gastrointestinal problems) and **demodicosis**

Corticosteroids are contraindicated!
/ except for Rosacea fulminans /

ROSACEA – ADDITIONAL TREATMENT

- **laser therapy** (pulsed dye laser, intense pulsed light) **in telengictasia**
- **dermabrasion, CO2 laser in rhinophyma**
- **photoprotection and elimination of aggravating factors!**



THANK YOU FOR YOUR ATTENTION :)