

How Do I Treat

How Do I Treat Rosacea?

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Etiology

Rosacea is a common disease in adults (1), but there is not much known about the origin of the disorder. The most common etiological hypothesis is that rosacea is a cutaneous vascular skin disease, with sensitive blood vessels in facial skin (2). Rosacea is related to ocular manifestations (3) and migraine (1, 4), the latter also being a disease thought to be due to sensitive blood vessels. Some authors propose that rosacea is a disease of the pilosebaceous glands (5), and for decades there has been an ongoing debate as to whether demodex folliculorum (6–8) in the sebaceous glands plays a role in provoking rosacea or not. Most likely,

the parasite cannot be ruled out, at least in inflammatory and pustular rosacea. There have been theories about rosacea and venous brain stasis (9), as well as the bacterium *Helicobacter pylori* in the stomach (10, 11), being more common in patients with the disease. No other bacterium has been connected with rosacea, nor have psychosomatic parameters (12), other gastrointestinal aspects (13), work with visual display units (14), or any specific immunological dysfunction (15).

The histology of rosacea is unspecific and usually of no value for the diagnosis, but a common picture is a diffuse lymphocytic dermal infiltrate, dilated blood vessels and elastosis (7). The elastosis may be due to the fact that most patients are light-complexioned and, therefore, their skin is easily damaged by exposure to the sun. Elastosis may also play a role in the origin of telangiectases; i.e. elastic pressure on the vessels is reduced in patients with dermal elastosis. Many patients also state that the symptoms are impaired by sun exposure, and some patients say that sun tanning camouflages the rash (1).

“Typical” clinical picture

Besides the “typical” clinical picture of telangiectases, erythema, papules and pustules in the central part of the face, and a positive history of aggravation due to climatic and alimentary factors are of value in differentiating the condition from, for example, acne tarda. Stinging due to different

external factors is also common (16). Impairing factors are, however, individual, and are not found in all patients. Other relatively common differential diagnoses are seborrheic eczema (different facial distribution of rashes, different treatment, anamnesis, and hair involvement), perioral dermatitis (red papules around the mouth and/or the nose orifices in young adult women, which is cured by a six-week course of tetracyclines or external metronidazole), discoid lupus erythematosus (skin biopsy), atopic dermatitis (anamnesis) and contact eczema (patch test). Rosacea is a chronic skin disease, but it usually becomes less severe over time.

What is the “typical” clinical picture of rosacea, a condition that varies from a stable erythema as the only sign, to swelling of the skin and rhinophyma, especially in older men? Is it really one disease only, or is it many diseases? No-one really knows, but the most common opinion is that rosacea is one disease with several different clinical patterns.

Therapeutical principles

How then do we treat a disease whose origin is uncertain? We do know that inflammation, elastosis, telangiectases and perhaps also dysfunction of sebaceous glands are important components of rosacea. We may treat these different components: inflammation with antibiotics, elastosis with retinoids, telangiectases with laser therapy (or retinoids?) and dysfunction of the sebaceous glands with antibiotics or retinoids.

Patients who have a history of impairing factors should, of course, try to avoid these, but it is most likely of no value to avoid alimentary factors that you do not have a positive history of. Common impairing alimentary factors are hot spices, hot beverages (not coffee itself!), hot food and alcohol (17). Stress and high workload are also common impairing factors, as they may influence facial skin blood vessels. Even if some patients think that sun tanning improves the symptoms (1), intense sun bathing should be avoided, since it increases the elastosis and telangiectases, and perhaps also the entire disease.

Treatment

Erythematotelangiectatic rosacea is usually difficult to treat. Propranolol may be of value if there is a great deal of flushing (18). Ichthammol 2% and salicylic acid 2% in, for example, cremor Essex may have some marginal effect on the redness. The ordinary rosacea treatment with tetracyclines or metronidazole has a poor effect on redness, but may have some effect after several months. Retinoids, either isotretinoin orally (0.5 mg/kg/day) or topical retinoids may be considered an alternative (19, 20). Hydrocortisone is sometimes used if there is any itching (most rosacea patients have no or mild subjective symptoms), and is probably harmless, but stronger topical steroids should be avoided (21). The flashlamp-pumped dye laser has an excellent effect on erythema and telangiectases (22) and, in our experience, also on stinging sensations, but an insufficient effect on

papules and pustules (data not yet published).

Papulopustular rosacea may, in most cases, be rather easy to treat with either tetracycline tablets (23) or topical metronidazole (24). Topical metronidazole may be used if papules/pustules are minimal, while oral tetracyclines should be used for more severe symptoms or when problematic stinging sensations are present. I always individualise the therapy, but a common start is tetracycline hydrochloride 0.25-1.0 mg/day over a period of ten weeks, with a follow-up visit or a phone call. The effect of the initial treatment acts as a guide for the future regimen; for some patients, 10 weeks of treatment will suffice, while other patients will require a smaller dose of tetracycline (as little as one tablet every other day) for months/years. Tetracycline hydrochloride may be continued during the

sunny season. The problem with impaired absorption in combination with milk products is, in my opinion, mainly theoretical, and I think tetracycline hydrochloride is an effective and inexpensive choice. The alternative to tetracycline for pregnant women is erythromycin, in the same doses. If tetracycline hydrochloride does not show positive enough effects, oral isotretinoin may be tried in doses of about 0.5 mg/kg/day, especially in cases of inflamed rosacea. Other topical alternatives are tretinoin (N.B. causes smarting), sulfur 10% in, for example, cremor Essex (25), and azelaic acid (26).

Rhinophyma. Surgical treatment by specially trained dermatologists/plastic surgeons/E.N.T. specialists is the treatment of choice, but isotretinoin may be tried (27) in doses of 0.5-1.0 mg/kg/day.

Table I. Different treatments of rosacea

Type	Treatment	Comments
<i>Erythematotelangiectatic</i>		
	Propranolol	Flushes
	Ichthammol 2% + salicylic acid 2%	Sometimes slight effect
	Antibiotics	Rather poor effect, try several months
	Retinoids	May work
	Hydrocortisone	Harmless
	Laser	Good effect (but expensive?)
<i>Papulopustular</i>		
	Tetracycline hydrochloride	Treatment of choice
	Erythromycin	Pregnant women
	Topical metronidazole	Often good effect
	Isotretinoin 0.5mg/kg/d	Severe inflamed rosacea
	Tretinoin 0.05%	May work, N.B. stinging
	Sulfur 10%	Rather good effect
	Azelaic acid	In studies good effect
<i>Rhinophyma</i>		
	Surgical treatment	Treatment of choice
	Isotretinoin	May work
<i>Ocular rosacea</i>		
	Tetracycline hydrochloride	Treatment of choice

Ocular rosacea. Ophthalmologists have great problems determining the diagnosis of rosacea, because, with the exception of rosacea keratitis, there are several non-specific eye disturbances in rosacea (3). Collaboration between the dermatologist and the ophthalmologist is often needed. Tetracycline hydrochloride is the drug of choice, and sometimes a dose of up to 2.0 mg/day is needed.

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