

## **Correlation of the severity of cutaneous rosacea with ocular rosacea**

Sir,

The National Rosacea Society's Committee identified four subtypes of rosacea: Erythemato-telangiectatic, papulopustular, phymatous and ocular.<sup>[1,2]</sup> The diagnosis of ocular rosacea should be considered when the patient's eyes have one or more of the following signs and symptoms: Watery or bloodshot appearance, foreign body sensation, dryness, itching, light sensitivity, blurred vision, telangiectasia of the conjunctiva and lid margin or lid and periocular erythema. Meibomian gland dysfunction presenting as chalazion or chronic staphylococcal infection are

common signs of rosacea-related ocular disease. Some patients may have decreased visual acuity caused by corneal complications (punctate keratitis, corneal infiltrates/ulcer or marginal keratitis).<sup>[2]</sup> Although the frequency of ocular involvement in patients with rosacea is reported to be somewhere between 3 and 58%, its exact prevalence is not known.<sup>[3]</sup> In approximately 20% of the patients, eye findings may precede skin changes, making the diagnosis more challenging for both the ophthalmologist and the dermatologist.<sup>[4]</sup> This study is performed to evaluate the ocular signs and symptoms of rosacea and their relationship with severity of cutaneous lesions.

Sixty-four adult facial rosacea patients (28 men and 36 women) with a mean age of 39.3 (range = 22-56) years attending our clinic from September 2004 to September 2005 were enrolled in this study using simple sequential sampling. A thorough medical history and physical examination including skin manifestations was undertaken and recorded for each patient.

We classified each major sign and symptom of rosacea into three groups: Mild, instant flushing, light red erythema, telangiectasia of up to 10 lines, less than 10 papules or pustules and 1-3 small nodules (plaques); moderate, flushing duration of less than 15 min, red erythema, 10-20 lines of telangiectasia, 10-20 papules or pustules and 4-10 nodules (plaques); severe, more than 15 min of flushing, purple red erythema, more than 20 lines of telangiectasia and more than 10 large inflammatory nodules (plaques).

After skin examination, we referred all the 64 patients to an ophthalmology clinic. The ophthalmologist had performed a thorough examination of the eyelids, conjunctiva and cornea via slit lamps. The fluorescein test was also carried out on all the patients.

The common ocular symptoms in rosacea were eye dryness (21.9%), eye strain (14.1%) and tearing (4.7%). Similarly, other studies have reported that the common symptoms were foreign body sensation, burning sensation and eye irritability accompanied by visible reddening of the conjunctivae<sup>[3]</sup>. It is thought that meibomian gland impaction leads to decreased lipid in the tear film, greater tear evaporation and subsequent irritability of the eyes.<sup>[1]</sup>

The common ocular signs were meibomian gland plugging (45.3%), blepharitis (23.4%), keratoconjunctivitis (14.1%) and chalazia (14.1%). None of our patients had the less common, but significant, abnormalities like scleritis, episcleritis, iritis, iridocyclitis, hypopyon, corneal thinning, corneal neovascularization, scarring and blindness. Previous studies have demonstrated that meibomian gland dysfunction, chronic conjunctivitis and recurrent chalazia are the common ocular signs in rosacea.<sup>[4,5]</sup>

In our series, ocular involvement did not correlate with the severity of papular, pustular, nodular lesions and flushing but, surprisingly, we found a significant relationship between the severity of telangiectasia and ocular involvement. This finding was not in agreement with the previous studies claiming that the ophthalmologic complications of rosacea are completely independent of the severity of facial rosacea.<sup>[5]</sup> On the other hand, it seems that the significant relationship between the severity of telangiectasia and eye lesions in our study might be an incidental experience. We agree with the general assumption that skin and eye lesions in rosacea are separate al together.

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