Hong Kong J. Dermatol. Venereol. (2019) **28**, 47-48

Editorial

Rosacea and metabolic syndrome: what are the implications?

Rosacea is an inflammatory condition affecting mainly the face and typically presents between 30 and 60 years of age with erythema, telangiectasia, acneiform papules and pustules. It has been hypothesised to be due to cathelicidins which are antimicrobial peptides. As part of the immune response, these enhance neutrophilic infiltration into the skin. The subsequent release of pro-inflammatory cytokines results in inflammation and vasodilatation. Recently, there has been increasing interest in the relation between chronic inflammation and and metabolic syndrome (MetS).[1] Other components of MetS such as diabetes mellitus and hypertension have also been found to be associated with proinflammatory cells while increased triglyceride levels have been shown to be proinflammatory in diabetics.[2-4] Thus, it is not unreasonable to suspect that rosacea may be linked with MetS. In recent years, Akin Belli et al have reported significantly higher levels of triglycerides, LDL and total cholesterol as well as higher systolic and diastolic blood pressure, although they did not find a significant increase in the rate of MetS in rosacea patients. There was also a significantly higher rate of insulin resistance in cases with rosacea.[5]

It is well-known that rosacea is not limited to the skin and can be associated with ophthalmological manifestations such as keratitis, conjunctivitis and blepharitis in which inflammation is also present. The recent reports of the association between rosacea and MetS add an extra dimension to this condition. In this issue, Ozbagcivan et al provide further data on this association. Their study also did not find a significantly increased prevalence of MetS in rosacea patients, although there was a higher rate of hypertension, dyslipidaemia, insulin resistance and hyperglycaemia in these cases.

The association of skin conditions with MetS is not a new concept. It is well-known that psoriasis, acne vulgaris and hidradenitis supprativa (HS) have an association with MetS.[6-8] The evidence for this link is strong in psoriasis and HS: in HS, even mild cases can be associated with MetS while studies have shown that psoriasis increases the risk of stroke, myocardial infarction and atherosclerosis.[6] A significant increase in the incidence of insulin resistance and MetS has been found in patients with acne vulgaris.[9] Chronic inflammation again underlies both psoriasis, acne vulgaris and hidradrenitis supprativa.

In view of the presence of inflammation in their underlying pathologies, a link between MetS and several other dermatological conditions such as vitiligo, granuloma annulare, scleredema, recurrent aphthous ulceration has been suggested. However, the evidence is less definitive for these although it is stronger for some conditions e.g. recurrent aphthous ulceration, scleredema.[10] At present, screening for MetS may be considered if there are other risk factors such as dyslipidaemia, hypertension or obesity.

What are the implications of these findings? It is becoming increasingly clear that skin conditions can often be linked to medical conditions as inflammation is a common underlying factor. When managing these cases, apart from treating the cutaneous condition, a holistic approach would be appropriate. In cases of rosacea, apart from the cutaneous findings, one should focus on a wider aspect such as enquiring for eye symptoms as well as considering screening for components of MetS if risk factors such as hypertension, hyperlipidaemia or obesity are present. While we are familiar with the cutaneous manifestations of connective tissue disease such as discoid lupus erythematosus, we should not forget that other skin conditions can reflect the internal state of the body.

CK Ho
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