Rosacea dermatology life quality index and coping strategy

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Abstract

**Background:** Rosacea is a chronic cutaneous inflammatory disorder characterized by persisting erythema, telangiectasia, papules, pustules, edema, phymas and ocular involvement. Because of its centro facial location rosacea can affect patients’ psychological well-being and can cause: depression, anxiety which itself decreases patients’ quality of life.

**Aim:** The aim of this study is to review, and summaries published literature about the rosacea, quality of life and coping strategies in patients with rosacea.

**Methods:** We searched all available literature in English, published in the PubMed and Google Scholar database. We used the key words: Rosacea, Dermatology Life Quality Index (DLQI) questionnaire and Carver coping strategy- COPE questionnaire.

**Conclusion:** Based on the literature review we identified that rosacea causes a marked decrease in DLQI in most patients. Data revealed that patients with rosacea use mostly avoidance strategies focused on emotions.

(1) TCM-GMJ October 2018; 3 (2):P4-P7

**Keywords:** Rosacea; Quality of life; Coping; DLQI; Stigmatization.

Introduction

Rosacea “acne rosacea”, “couperose” and “facial erythrosis”(1), is a common chronic inflammatory skin disease caricatured by flushing, persistent erythema, telangiectasias, pimples and pustules on the face (2,3).

Rosacea is more common in patients with the Celtic skin type and fair complexion (Fitzpatrick types I–II) than in Mediterranean types with darker skin (IV and V) (1,4). The usual age of onset is between 30 and 50 years; however, in rare cases, rosacea can already occur in children (4,5).

According the data of US Census Bureau, population estimates prevalence of Rosacea is 13 million people in the United States, in Georgia - 223,340. The prevalence varies greatly between countries from 1% to 22% (4).

Rosacea occurs in both men and women, although it is more prevalent in women than in men, especially in earlier stages of the disease, 80% of rosacea women patients are 30 years or older, with the highest prevalence at age of 61 to 65 years, whereas men are more frequently affected from the age of 50 upward with a peak prevalence around 76 to 80 years. However, men with the condition are more likely to develop phymatous changes (3,6,7).

Pathogenesis

At present, pathophysiology of rosacea is poorly understood. Various potential pathogenic factors plays role in development of rosacea, such as: genetic, dysregulation of the innate and adaptive immune system, neuroinflammatory mechanisms, environmental trigger factors include exposure to extremes of temperature (hot and cold air), temperature changes, ultraviolet exposure, caffeine, alcohol, hot and spicy foods, sunlight, exercise, acute psychological stresses, menstruation, demodex mites, Helicobacter pylori, and certain medications (3,4), local inflammatory responses to cutaneous microorganisms, as well as changes in the regulation of vascular and lymphoid vessels seem to play a role in pathogenesis of rosacea (1,8,9).

There is no confirmatory laboratory test for revealing the disease (4,10). Due to the multifactorial pathogenesis that cannot be easily addressed therapeutically, treatment strategy currently focuses on symptomatic suppression of inflammation and reduction of disfiguring features (4).

Clinical Manifestations and Subtypes of Rosacea

Rosacea diagnostic criteria are clinical and have been defined by the National Rosacea Society Expert Committee (NRSEC), to comprise primary (flushing, non-transient erythema, papules and pustules and telangiectasia) and secondary features (burning or stinging, plaques, dry appearance, edema, ocular manifestations, peripheral location and phymatous changes) (11,12). Rosacea can be divided into four subtypes of erythematotelangiectatic (ETR), ETR flares are due to acute vasodilatation and innate inflammation. In subtype - II papulopustular (PPR), inflammatory papules and pustules are seen in the central region of the face. Subtype III - phymatous (PR) rosacea, disfiguring growth of hyperplastic sebaceous glands on the nose.
and other facial regions (4,11). Subtype IV - ocular rosacea that can include symptoms such as conjunctivitis, blepharitis, irritation, dryness or keratitis (13,14). Patients can present with more than one subtype however ETR and PPR are mutually exclusive.

Treatment

Rosacea is treatable but seldom curable. Treatment schedules are determined by the stage and severity of the disease, it is characterized by an unpredictable pattern of exacerbations and remissions on a background of highly sensitive skin (15-17). Since rosacea is a chronic inflammatory condition that waxes and wanes, with many triggers, the goal of treatment should be to subside acute flares with rapid-acting treatments and maintain the results with lifestyle modification and prolonged combination therapy (18).

Discussion

A standard classification system for rosacea was published in the April 2002 issue of the Journal of the American Academy of Dermatology. Developed by the National Rosacea Society Expert Committee on the Classification and Staging of Rosacea and reviewed by rosacea experts worldwide, it describes primary and secondary features of rosacea and recognizes 4 patterns of signs and symptoms, designated as subtypes (12).

To enhance the utility of the system for both clinicians and researchers, the committee has devised a standard method for assessing gradations of the severity of rosacea (15). For clinicians assessing patients, primary signs and symptoms may be graded as absent, mild, moderate, or severe (0-3), and most secondary features may be graded simply as absent or present (12).

This investigational instrument is intended to help to provide a foundation for better understanding of rosacea among practitioners and researchers by establishing a common language for communication and facilitating the development of a research-based approach to diagnosis and treatment (12).

Because the facial skin is the predominant site of involvement during rosacea, many patients sense that rosacea alters their social and professional interactions, leading to problems on the job, in their marriage, or in meeting new people (19). Previous studies show that those with chronic dermatoses including rosacea are often affected by emotional disturbance and social stigma. The common misconception that both the facial redness and the rhinophyma associated with rosacea are due to excessive alcohol consumption makes rosacea a socially stigmatizing condition for many patients, many research proves displayed a marked impact of rosacea on patient's emotional well-being and social activities associated with a decrease in patients' self-esteem. Patients more frequently report feelings of anxiety, guilt and shame, they are depressed and have feeling of embarrassment (12,20,21). Patients have the Social Phobia, that includes items such as 'I get nervous that people are staring at me as I walk down the street', 'I feel awkward and tense if I know people are watching me' and 'I would get tense if I had to sit facing people on a bus or a train' (9,10, 22-26).

Race involvements during rosacea causes more work-related stress and are more sensitive to unkind comments in the workplace (17). Such psychological factors perpetuating the distress.

Stigmatization is defined as a discrediting feature that sets a person apart from others and implies disapproval from others (24). Psychiatric morbidity in dermatology patients usually takes the form of mood and anxiety disorders. The prevalence of psychiatric disorders, most commonly depression and anxiety, ranges from 25% to 43% among dermatologic patients (15, 27). Within the cohort of rosacea patients studied here, more men reported feeling of stigmatization than women, in part due to a higher prevalence of the phymatous subtype (24).

According to the studies the frequency of perceived stigmatization was highest amongst those aged between 18 and 24 years old, which may be due to the greater importance of facial appearance and social pressure encountered by younger patients (24).

Stigmatization is important in the daily lives of those with rosacea and should be taken into consideration in the management of these patients. All these psychological symptoms can influence patient's quality of life.

During researches most, scientists use Dermatology Life Quality Index (DLQI) questionnaire and Carver coping strategies (28).

DLQI questionnaire was used to assess the quality of life in patients with rosacea. The questionnaire was designed in 1992 by Finlay and Khan to assess the quality of life in patients with skin diseases, it has been widely used in various communities and through various studies which its validity has been proved as 93% (15,16,28,29).

DLQI is a 10-item survey evaluating the quality of life in patients with a skin disease, covering six domains: symptoms and feelings, daily activities, leisure, work and school, personal relationships and treatment (31).

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Rosacea is a challenging disease to cope with (32-34). Coping is a very broad concept with a long and complex history (33,34). Many different scientific studies exist not only in dermatology but also in psychology, deal with individual differences in experiencing difficult events. Extremely important, both for theoretical and practical reasons, is explaining what constitutes coping with stress (35,36).

Coping is considered one of the core concepts in health psychology and in the context of quality of life, and coping strategies are strongly associated with the regulation of emotion, especially anxiety, throughout the disease period (37).

Perhaps the most widely cited definition of coping continues to be that of Lazarus and Folkman (1984), almost 30 years since it was first presented Lazarus & Folkman (1984) “Constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person”’. Lazarus (2004) “Efforts to manage adaptational demands and the emotions they generate”; Compas et al. (2001) “Conscious and volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances” (13,34,38).

There is continued debate about the underlying structure of coping and the subtypes that best capture the varied nature of coping responses. For example, Skinner et al. (2003) identified over 400 subtypes of coping that have been studied, noting that progress in determining the structure of coping has been slow (34).

Coping strategies were classified commonly within two dimensions by Lazarus and Folkman (1984), but three dimensions by Compas et al. (2001), Lazarus and Folkman in their transactional model, conceptualized the coping process as an iterative cognitive-behavioral process exercised in a stressful situation, and emphasized the importance of the mutual interaction between cognitive appraisal on a stressor and coping. Findings suggest that the status of the coping process in stressful situations varies among individuals (39). They proposed (a) problem-focused (e.g., strategies directed toward managing the stressor) and (b) emotion-focused (e.g., strategies directed at managing emotional distress) coping dimensions. Alternatively, Compas and colleagues have classified coping strategies within (a) task-oriented, (b) distraction-
oriented, and (e) disengagement-oriented coping (36,40,41).

According to the transactional model of stress and coping, problem and emotion focused coping mediate the impact of appraisals on adjustment following stressful events (42); problem-focused coping is directed to the stressor itself: taking steps to remove or to evade it, or to diminish its impact if it cannot be evaded (33). It involves employing active strategies to resolve the stressor, while emotion-focused coping involves processing and expressing feelings arising from the stressor (42).

Coping within the task-oriented coping dimension consists of strategies aimed directly at managing stress and includes logical analysis, effort expenditure, and thought control (41).

Task-oriented coping aims at dealing directly with the source of stress and the resulting thoughts and emotions; it is represented by strategies such as increased effort, planning, relaxation, and cognitive reappraisal. Disengagement-oriented coping encompasses strategies through which people disengage themselves from the process of striving to make progress on a personal goal; it includes strategies such as denial, behavioral disengagement, alcohol and drug consumption, and venting of unpleasant emotions (40).

Successful adaptation to stress includes the ways in which individuals manage their emotions, think constructively, regulate and direct their behavior, control their autonomic arousal, and act on the social and nonsocial environments to alter or decrease sources of stress (36).

Acknowledgements

We wish to thank Charles S. Carver, for allowing us to use the ‘COPE Scale’ as a basis for developing the ‘questionnaire on experience with skin complaints’ (QES).

Reference