

Progressive Treatments for Rosacea

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Abstract— Rosacea is a currently incurable skin condition that has a variety of undesirable ramifications for the victim. This condition affects a large population, being considered one of the most common skin conditions, however, there is still no cure for Rosacea only treatments. Progressive treatments and new treatment alternatives show promise for the future of Rosacea victims.

I. INTRODUCTION

THE disease Rosacea is reported to be one of the most treated conditions by dermatologists. The National Rosacea Society recently stated that Rosacea currently affects 16 million Americans[1]. The disease presents itself in a manor of forms, categorized by four more commonly acknowledged types: erythematotelangiectatic (ET), papulopustular (PP), phymatous (PH), and ocular. The first(ET) displays itself as a flushing or redness on the face, head, neck, and chest. However, it is primarily found on the cheeks, nose and chin regions. The second(PP) presents itself as papules and pustules on the skin. The third(PH) presents itself as malformation or growth on the skin, primarily on the nose or chin. The fourth(ocular) comes as redness, dryness, or irritation of the eyes[2]. More than one of these types may present themselves at a time, the ET variety being the most common. Rosacea has not been proven to have any non-cosmetic symptoms, however, its ability to alter one's appearance can have a detrimental affect on an individuals quality of life. There has never been a cure for this condition, however, treatments exists that subdue or reduce symptoms. New treatments methods have been analyzed for effectiveness of treatments.

II. METHODS

Treatments that were analyzed and are going to be discussed include: Brimonidine Tartrate, Oxymetazoline, and Ivermectin. These drugs were admitted to clinical trial subjects and analyzed over a length of time. Since there is not a universal method of quantitatively testing the extent of Rosacea, the success of the treatments was based on observational analysis by the subject and the administer. The administer's assessment will be referred to as the Clinician's Erythema Assessment (CEA) and the patients assessment will be referenced as the Patient's Self-Assessment (PSA)[4].

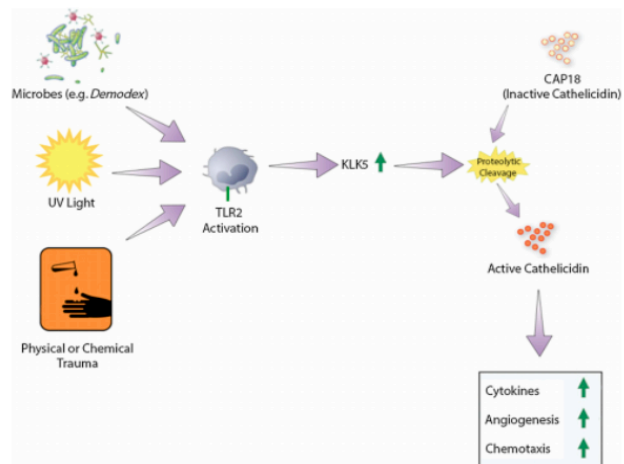
III. RESULTS

Brimonidine Tartrate is administered as a 0.33 % gel which is an α_2 -adrenergic receptor agonist and anti-inflammatory. The gel was applied and recorded over a 12 hour period. The PSA was 84, 81, 75, and 28 % over three hour sections of the 12 hour period for Phase II. Similar studies were performed with different concentrations and variations of the gel. The overall results were promising, however, there is concern of possible cardiovascular impairment[4].

Oxymetazoline is a selective adrenoreceptor agonist. This drug is also used for the treatment of epistaxis, allergic rhinitis, and conjunctivitis symptoms[5]. Random case studies were performed. Success was random and inconclusive, but the span of positive results is promising. One patient with ETR treated topically with xylometazoline 0.05 % solution

experienced improvement in erythema as well as in subjective symptoms (flushing, itching)[6].

Ivermectin, used as both oral and topical treatments can be used to treat Rosacea like symptoms. Many studies were performed, one, a 12 week study, significantly more patients in the ivermectin 1 % group achieved 'clear' or 'almost clear' on the Investigator's Global Assessment of Rosacea Severity in both Study 1 (38.4 %) and Study 2 (40.1 %) compared with vehicle (11.6 and 18.8 %, respectively)[7].



IV. DISCUSSION

Rosacea flushing can be triggered by so many different environmental factors that it is hard to reduce flushing/flaring. The figure above displays a theoretical cause of Rosacea[4]. Treatment methods are promising, however, there are no cures and the treatments are still progressing. Some of the more effective treatments have either unpredictable side effects, or limit cardiovascular function. However, here is no conclusive evidence wether or not there will be long term negative affects of these treatments[4].

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