

## Abstract

Acne is the most common and inflammatory chronic skin condition, caused by blockage or inflammation of hair follicles and their associated sebaceous glands. Acne can be present in different forms like inflammatory comedones and non-inflammatory (papules, pustules, nodules and cysts). There are several methods to treat the acne like topical and oral treatments included light and laser treatments. However apart from the local adverse effects of many of these agents, it's important to localise the effect of application site alone. In this way a lot of natural products can be helpful in the treatment of acne and one of them is glutathione. Glutathione is the body's own master antioxidant. In our research pure and natural Glutathione has been used. It was extracted from spinach. Firstly glutathione was isolated from spinach through Trichloro acetic acid. The yield was 163.6 mg/kg then quantitative and qualitative analysis was done on amino acid analyser. After that formulation was done. Basically formulations were prepared for mild and mild to moderate type of acne. Formulations of 1% and 3% glutathione by weight of total composition were prepared for clinical trials. The antioxidant activity of GSH gels were performed using various *in vitro* assays i.e. DPPH radical scavenging activity, percent inhibition of linoleic acid peroxidation and bleaching of Beta carotene. Isolated Glutathione showed significant results against oxidative stress and thus effective against acne prone skin, not only it cleared the acne and acne spots but also lightened the skin tone and improved the skin texture.