

Photodynamic therapy in the treatment of acne vulgaris: a study. Preliminar results.

P. Cappugi¹, A. Lagi², C. Salvini¹, A. Cappuccini², L.Mavilia¹, C. Comacchi², I. Ruffino², A. Corsi^{2*}

¹Department of Dermatology, University of Florence, Florence, Italy

²ASL 10 Firenze, P.O. "Santa Maria Nuova"

Acne is a disease of the pilosebaceous follicles, whose principal pathogenic factors in acne are well know : abnormal follicular keratinisation leading to plugging of the follicle; increased sebum production under the follicular plug; inflammation; proliferation of *Propionibacterium ssp.* in the sebum.

The role of infection is fundamental: *Propionibacterium acnes* and *Propionibacterium granulosum* are found mainly in the sebaceous areas of the skin. P. acnes is a porphyrin-accumulating bacteria, which may have an important role in the promotion of inflammatory reactions, and which can be killed by light.

The Photodynamic Therapy (PDT) of acne vulgaris with topical 5-aminolaevulinic acid showed an apparent improvement of facial appearance and a reduction in the development of new acne lesions.

In our study, patients were treated twice with PDT and ALA 16% with a one month interval. After 1 month there was a reduction of inflammatory skin and of scars. Side effects were only transient. results show that PDT could be beneficial in the treatment of acne not only by cytotoxic effects on the skin but by anti-bacterial effects against *Propionibacterium ssp.*

