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Effectiveness of the formulation that containing oleanolic acid 3% on inhibition of 5-α reductase activity on skin of patients with acne

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The cutaneous disequilibrium give rise to acne form episodes frequently associated with periods of stress or change in lifestyle. The dead cells shed in larger lumps, these lumps of dead skin cells can block the skin pore that prevents sebum from flowing out so acne create by accumulation of sebum. 5α-reductase is an essential enzyme in steroid genesis leading to production of hormones and involved in normal cell development and they observed in the skin and sebaceous glands. Testosterone has been identified as a chief trigger of acne development and works with the enzyme 5α reductase to create di-hydrotestosterone that is approximately three or four stronger than testosterone itself that causing an increase in sebum production so leading to an oilier skin and follicles become blocked with excess oil and creates a comedo or acne breakout. Oleanolic acid, a triterpene saponin extracted from plants was particularly effective in inhibiting type I 5α-reductase. in vitro test have been used to evaluate the inhibitory effect of oleanolic acid on 5α-reductase to fight hyperseborrhoea, by measuring the consumption of NADPH in the presence of the substrate, testosterone and various quantities of oleanolic acid and determination the inhibition of testosterone conversion to dihydrotestosterone by using HPLC and *in vivo* test was done by 9 volunteers with oily skin, used a formulation that containing 3% Oleanolic acid Twice daily for 6 weeks. The results indicated that the inhibition of 5-α-reductase 68% by oleanolic acid was concomitantly observed in vitro and is clearly shown to inhibit 5-α-reductase with a dose effect enabling inactivation of 54% of testosterone conversion to dihydrotestosterone.

Biography

Hamidreza Ahmadi Ashtiani has completed his Ph.D. at the age of 24 years from Veterinary school of Urmia University and also Pharmacology from Tehran Islamic Azad University of Science and Research. His postdoctoral studies were from Tarbiyat Modarres University of Tehran and he was top student of country in Ph.D. level. His book was Selected of Fourteenth Year Book Festival at 2008. He is the Director of Cepigène Company. He has published more than 51 papers in reputed journals and serving as an editorial board member of repute.

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