

Urocanic acid isomers in human skin: analysis of site variation

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Article first published online: 29 JUL 2006

DOI: 10.1111/j.1365-2133.1995.tb02746.x

British Journal of Dermatology

Volume 133, Issue 5, pages 728–731, November 1995

Summary Urocanic acid (UCA) is found in the stratum corneum as the *trans*-isomer and, on ultraviolet (UV) irradiation, photoisomerization into *cis*-UCA takes place. *Cis*-UCA has been suggested to play a part in UV-induced immunosuppression. In the present study, the concentration of UCA and the percentage as *cis*-UCA at 10 different body sites of 20 normal volunteers were analysed. A large interindividual variation in total UCA concentration was found, but the mean UCA concentration in each site was similar, other than at the sole of the foot. There was little variation in the UCA content between sites normally exposed, and not exposed, to light, but the percentage of UCA in the *cis* form was clearly higher at exposed areas.