Defining the etiopathophysiology is the key with respect to the mechanism of drug-induced gingival overgrowth (DIGO)

The disfiguring side-effect of DIGO was first reported in 1939. The mechanism and the development of successful repeatable therapeutic protocols have baffled researchers and clinicians for over 85 years. Recently, a conceptual unifying hypothesis describing the mechanism was developed which has led to the elucidation of the first mechanistic step. The initial query was to determine a commonality between the three very different drug categories (Anti-convulsants, Calcium channel blocking agents and calcineurin inhibitors) which could plug into a defined pathway. The pathway was eventually put together as decreased cation flux leading to decreased cellular folate intake, decreased AP-1, increased TIMP-1; decreased MMP-1 & 2 and decreased collagenase activation. The determination of the pathway has potential even beyond the development of successful therapeutic protocols for DIGO.

Biography

Ronald S Brown (DDS, MS Dipl. ABOM, FACD and FICD) graduated from Georgetown University School of Dentistry in 1971. He practiced General Dentistry in the US Army and private practice in the DC metropolitan area until 1985. He graduated with an MS in Pharmacology and a certificate in Oral Medicine in 1988, also from Georgetown University. He has held faculty positions at Georgetown University School of Dentistry, University of Texas Health Science Center at Houston, Dental Branch and currently serves as a Professor at Howard University College of Dentistry, as a Clinical Associate Professor at Georgetown University Medical Center and as a Volunteer Clinical Research Associate at NHLBI/NIH. His research interests concern Oral Inflammatory Disorders, Oral Graft vs. Host Disease and Drug-induced gingival overgrowth. He has presented over 175 CDE presentations and is recognized as one of the top CDE presenters by Dentistry Today. He has over 100 peer reviewed journal publications, and he has written over ten books and book chapters. He received the Abraham Reiner Diamond Pin Award for lifetime achievement in the field of Oral Medicine and the Organization of Teachers of Oral Diagnosis Outstanding Educator Award. He is a past President of the American Academy of Oral Medicine, the current President of the American Board of Oral Medicine and the current Secretary of the American Board of Dental Specialties.

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