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## Efficacy of adjunct (laser) therapy to topical agents among Southern Nigeria acne vulgaris patients

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**Background:** Acne Vulgaris, a common inflammatory disorder of the sebaceous gland presenting with comedones, papules, pustules, cysts and scars on the face, back, chest; with potential significant psychosocial morbidity. The efficacy of laser as an adjunct to self-management topical approach among males was studied.

**Materials & Methods:** 40 patients of University of Nigeria Enugu Campus within 16years-above diagnosed of facial acne were parallel randomized into laser group (n=15) and placebo controlled single-blinded group (n=20). Quota sampling was applied across the faculties to select and randomize subjects into laser and control groups as well as blocked randomization and balloting without replacement at allocation ratio of 1:1; for assignment of patient into laser and control group. Both patients and assessing physician were blinded. Treatment group had 905nm non-ablative infrared pulsed laser dose twice for eight sessions while the control got a placebo through the 25cm<sup>2</sup> quadrant and Global Acne Grading System- GAGS outcome measured.

**Results:** A significant improvement in clearance rate of acne occurred when laser was used as an adjunct therapy relative to control group (54.98% vs. 17.97%, t=9.773, p=<0.0001, C.I=95%). Specifically, antibiotic cream (57.41% vs. 30.65%, p=0.007), medicated soaps (50.00% vs. 25.00%, p=0.013), talcum powder (57.43% vs. 10.34%, p=0.005) and normal hygiene (53.57% vs. 5.90%, p=0.006).

**Conclusions:** A significant improvement in clearance rate of acne occurred when laser (adjunct) therapy was used to self-administered topical agents compared to the topical approach application alone.

### Speaker Biography

Pastor Canice Chukwudi Anyachukwu is a Lecturer I academic staff of the Department of Medical Rehabilitation, Faculty of Health Sciences, College of Medicine, Enugu Campus, University of Nigeria, Nsukka. He obtained his first degree in General Physiotherapy (B.Sc-PT) in Bayero University, Kano (1996) as a pioneer student; master's degree from the Department of Medical Rehabilitation, Faculty of Health Sciences, College of Medicine, Enugu Campus, University of Nigeria, Nsukka in Sports/Orthopedic Physiotherapy/ Rehabilitation; and presently in the final lap/year of the PhD thesis in same University's department on a multidisciplinary (Sports Immunology & Exercise Rehabilitation) thesis involving Physical therapy/Rehabilitation, Laboratory/molecular medicine and radiological medicine which is focused on the Assessment of patients' prostate biomarkers post 12weeks aerobic exercises and sonography evaluations. The author happens to be the first physiotherapist to obtain the enviable sponsorship of Prostate Diseases Research Foundation (PDRF). He joined the foundation in 2010 as the pioneer program officer, then 2011 for the scholarship on part-time study bases since he is a staff of the university and in 2015 when he became the Secretary-General of the PDRF & BOT member. He has several meritorious awards of honour from Institute for Neuroscience & Biomedical Research (INBR), Nigeria, International Research & Development, Ghana as an honorary member, Fellow, Nigeria Institute of Industrial Administrators (NIIA) and One-of-the-Best-Four Nigerian Volunteer Sports Physiotherapist (10th World FIFA/COLA Youth Soccer Championship Enugu-Zone, NIGERIA '99). He has authored many peer-reviewed journals in different areas of study because of vast areas of research interest.

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