



FACULTY OF CLINICAL SCIENCES
COLLEGE OF MEDICINE, UNIVERSITY OF LAGOS



13th Annual Scientific Conference & Gathering

THEME

**Environmental Virology,
Exposomics and Epigenetics**

VENUE

Old Great Hall, College of Medicine,
University of Lagos, Idi Araba,
Lagos State

DATE

WEDNESDAY 8TH JUNE 2016

TIME

8.00 am - 5.00pm

• PROGRAMME & BOOK OF ABSTRACTS •

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Environmental Virology, Exposomics and Epigenetics

SUBTHEMES

**Non-communicable diseases: environmental and genetic influences
Public health financing and resource limitation**

CHAIRMAN

Professor Rahamon A. Bello

Vice Chancellor, University of Lagos

SPECIAL GUEST OF HONOUR

Dr. Olajide Idris

Honourable Commissioner for Health, Lagos State

GUEST SPEAKER

Professor Sunday Aremu Omilabu

Professor of Virology
College of Medicine, University of Lagos

VENUE

Old Great Hall, College of Medicine, University of Lagos, Idi Araba

DATE: Wednesday June 8th 2016 **TIME:** 8:00 am – 5:00 pm

Conference website

www.cmulfcsconference.com

COMPARATIVE ANALYSIS OF THE RELATIONSHIP OF ADMISSION HYPERGLYCEMIA TO SEVERITY AND 30-DAY OUTCOME IN ACUTE HEMORRHAGIC AND ACUTE ISCHEMIC STROKES AT THE LAGOS UNIVERSITY TEACHING HOSPITAL.

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Background and Objectives: Admission hyperglycemia has been associated with greater stroke severity and poorer outcome in acute ischemic stroke (AIS). The relationship to intracerebral hemorrhage (ICH) is less consistent. The aims of the study were to compare the frequency of admission hyperglycemia in AIS and ICH, and determine the relationship to severity and short term outcome (case fatality) of AIS and ICH.

Methods: A cross-sectional comparative study of first ever computerized tomography (CT)-confirmed AIS and ICH presenting within 72 hours of symptom onset to the Lagos University Teaching Hospital, Lagos State was conducted. Hyperglycemia was defined as admission RBG ≥ 140 mg/dl). Stroke severity on admission was determined using the NIH stroke scale (NIHSS). Outcome was assessed as 30 day case fatality.

Results: The study recruited 85 AIS and 85 ICH. The mean age of stroke cases was 59.0 ± 11.4 years. The frequency of admission hyperglycemia overall was 23.5% (AIS - 24.7% and ICH - 22.4%; $p=0.72$). The frequency of elevated admission HbA1c in AIS (18.8%) was higher than in ICH (9.4%) ($p=0.08$). There was a significant positive correlation between stroke severity (NIHSS score) and admission RBG in AIS ($R=0.47$; $p=0.0001$) but not in ICH ($R=0.19$; $p=0.08$). Hyperglycaemia was associated with a 30-day case fatality rate (CFR) of 42.5% in contrast to CFR of 24.6% in strokes with normoglycaemia. This difference was only significant in AIS (CFR 42.9% with hyperglycemia, 12.5% with normoglycemia; $p=0.003$). In ICH CFR was 42.1% with hyperglycaemia and 36.4% with normoglycemia ($p=0.65$).

Conclusions: Admission hyperglycemia is frequent in AIS and ICH and significantly correlates with severity of AIS but not of ICH. The effect of hyperglycaemia on CFR is more pronounced in AIS.

Key words: stroke, hyperglycaemia, ischaemic stroke, intracerebral haemorrhage, outcome