

ABSTRACT OF INAUGURAL LECTURE

PRESENTER: PROFESSOR ABIODUN O ADEYINKA

VASCULAR AND NEURO-IMAGING: DENSITIES PITCHES AND SPINS

The major focus on my Lecture has been on Neuro-Imaging of pathological process in Brain and Spinal diseases, and also on Vascular Imaging. Even though a higher percentage of my intellectual contributions shows bias towards Neuro-degenerative and Neuro-Psychiatric brain diseases, other lesions such as organic Brain and Spinal focal lesions and traumatic brain diseases were also highlighted in the scope of the work. Brain and Spine Computerized Tomography and Magnetic Resonance Imaging and Doppler Ultrasound are the radiological imaging modalities that have been used to describe the patterns of lesions in these diseases.

The Neuro-Psychiatric work presented in the research work highlights the clinical profile of Brain Computerized Tomography (CT) measures among Nigerian Psychiatry patients and emphasize the relationship between measured CT values and varied clinical variables. The radiological information obtained has provided a better understanding of the brain morphological changes and the nature of the disease entity, which may further be used to achieve accurate diagnosis and monitoring of progress of therapy. It also offered the opportunity to correlate the CT measures with clinical outcome of the disease. Recent advances in technology has shown that Magnetic Resonance Imaging (MRI) provides better information on neuronal brain changes and morphological characterization of brain lesions than CT. MRI, although was not frequently used in most of the studies, but will definitely be a tool that would be utilized to widened the scope of research in Neuro-imaging of the brain in future.

Vascular brain diseases in recent times have shown an increasing trend in our community due to the existing prevailing risk factors such as poorly control hypertension and diabetes and frequent traumatic head injuries, which makes these diseases a potential major public health problem in the developing countries. Hence, there is a need to research more into this disease entity and acquire more knowledge and skills in its management, and further develop our diagnostic facilities and competence to cope with the medical demands that may evolve in future in these areas. This Lecture highlights the diagnostic value of non-invasive Computerized Tomography Angiography (CTA) and Color Doppler Ultrasonography in demonstrating the radiological patterns of these vascular diseases. Vascular lesions often pose a diagnostic problem which may have an effect on surgical planning or treatment. In conclusion, the research focus span through Neurological, Neurosurgical, Neuro-psychiatry and Vascular radiology, with emphasis on the important radiological imaging modalities (CT, MRI & Color Doppler Ultrasound) that are valuable in the diagnostic and therapeutic work in the field of neuro-sciences.