Conventional Pap Technique (CPT) in comparison to the Modified Emergency Method (MEM) in the diagnosis of cytology specimens

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The staining technique for cytology is the Papanicolaou staining procedure; that has undergone different modifications over time. In this study, the modified technique is referred to as Modified Emergency Method (MEM). This study is designed to establish a superior and more improved qualitative staining technique for the diagnosis of cytology specimens. Forty Pap smears from 20 patients (2 per subject) as well as 20 FNAC from 10 patients is collected. The Pap smears are marked (A1 to A20) for CPT with the corresponding (B1 to B20) marked to demonstrate the MEM. FNAC specimens (C1 to C10) are also marked to demonstrate the CPT with the corresponding (D1 to D10) marked for the MEM while CPT and the MEM stain each pair of the slides. Absolute alcohol is used only during the fixation process and at the last step for dehydration, which are the same as CPT. Staining of the smears is according to the CPT protocols and a modified version for MEM. The results showed that cytoplasmic and nuclear staining are optimal in 99% of smears stained by MEM while 95% of smears are optimal by CPT. The cost of production is reduced by 45% while the total staining duration in MEM is (7±0.5) as against (26±0.5) minutes in CPT. Economically, MEM is excellent, the cost is reduced, and the use of alcohol is minimal. It serves as a rapid alternative staining for cytological screening and may be considered as a suitable alternative to CPT for cyto-diagnosis of cancer cells.

Biography
Odigie Bolaji Efosa is currently pursuing his PhD in Medical Laboratory Science with Histopathology/Cytopathology as specialization at the University of Nigeria, Nsukka. His research interest focuses on Comparative and Experimental Pathology, and Cervical Cytology with a particular interest in abnormal cervical lesions and deleterious effects of medicinal plants (herbal therapy) in humans at the cellular level. He has over 18 publications in reputed and peer reviewed journals on the above subjects. He is the Coordinator of the Sexual Health Concerns for the Commercial Sex Workers (SHCCSWs) Research Group in University of Benin, Nigeria.

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