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### **Role of microRNAs -29b-2, -155, -197 and -205 as diagnostic biomarkers in serum of breast cancer females**

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**M**icro-RNAs (miRs) are known to be differentially expressed in the serum of cancer patients and controls, and can thus be used as biomarkers for cancer screening. We detected the expression level of miR-29b-2, 155, 197 and 205 in the serum of female breast cancer patients and healthy controls to detect whether serum level of this chosen micro-RNAs could detect patients with breast cancer and also to detect difference in level of microRNAs between non-metastatic cases and metastatic cases, also we tried to detect any relation between level of micro-RNAs and the stage of the tumor, the size of tumor, nodal affection, the presence of metastasis and also the site of metastasis. Serum samples were collected from 130 female patients, 80 with non-metastatic breast cancer, 20 with metastatic breast cancer and 30 healthy controls. Real-time quantitative PCR was used to detect the expression level of miR-29b-2, -155, -197 and -205. The expression level of miR-29b-2, -155, -197 and -205 was significantly increased in the serum of breast cancer patients. We detected statistical significance in expression of the different types of micro-RNAs in relation to tumor size, expression is higher in T3 than in T2 cases. We detected statistical significance in expression of the different types of micro-RNAs in relation to nodal affection, expression is higher in N3 than N2. miR-29b-2, -155, -197 and -205 may be useful as a blood-based biomarker for breast cancer screening.

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### **A Survey of Typhoid Fever Epidemic In Eastern Nigeria**

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**Introduction:** Many methods for the diagnosis of typhoid fever have been established. Widal test is the most popular diagnostic laboratory test for typhoid fever in Nigeria. The abuse of widal test have been reported. That typhoid fever is endemic in Nigeria is true but the outbreak of an epidemic has uptill now not been documented. In eastern part of Nigeria where this survey was carried out and indeed in the whole Nigeria, the ailment typhoid fever has been grossly exaggerated and given epidemic undertone. This survey therefore sought to determine the validity of the claim and the possible reasons behind it.

**Methods:** Questionnaire method was used for this study. A total of 45 hospital and 70 doctors working in them were surveyed. 30 diagnostic laboratories and 67 staff working in them were also surveyed. A total of 900 patients were used. Only the patients who complained of malaria or typhoid fever related symptoms and sent to lab analysis were used for the study. They were randomly selected.

**Result:** 61% of the doctors were general practioner while 7.1% were pediatricians, physicians were 20% and surgeons 11%. There were more privately owned laboratories (56.6%) compared to hospital owned (43.4%). 40.3% were unqualified lab workers working in the lab while 25.4% were qualified ones. Adult males were highst, 57.1%, adult females 40% and children 2.9% majority of the request were made by the subjects themselves (45.3%) while those requested by doctors were 30.1% and those recommended by others including non-medically qualified persons and lab staff themselves were 24.6%. When the result of the widal tests were analysed, it showed that 83.9% were positive for salmonella typhi while the rest negative (16.1%) and that 79.39% of the positive samples were obtained in the privately owned lab. And none were sent for confirmatory test.

**Discussion:** The epidemic picture of typhoid fever in eastern Nigeria in general can be said to arise from the abuse of widal test, and actually there is no true epidemic of this in eastern Nigeria within the period studied. The medical practitioner should live up to their professional ethics and government should clamp down on all the mushroom labs. No grant were received in the development of this study.

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