

AIPOH PETER OSHOKHAMELE	"COMPARISON BETWEEN PLACENTA ALPHA MICROGLOBULIN-I (Amnisure Test) AND STANDARD DIAGNOSTICS METHOD IN DETECTION OF RUPTURE OF FETAL MEMBRANES"	2017	Dr. Jerry .O. Uwaifo Dr. G.E. Agbon-Ojeme Dr. .O. Ugbomoiko,
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**ABSTRACT**

**Objective:** *To compare the diagnostic accuracy of placental alpha micro-globulin-1 assay with standard methods (Nitrazine stick test and clinical pooling of amniotic fluid in the posterior fornix) for detecting rupture of fetal membranes.*

**Study Design:** *Prospective simple comparative diagnostic study.*

**Setting:** *The study was conducted in Central Hospital,. Benin City, Nigeria between February 2015 to June 2015.*

**Methods**

*A three hundred and twenty patients at gestational age of 24 – 42 weeks with history, signs and symptoms suggestive of drainage of liquor were recruited after informed consent. Each patient was tested for rupture of fetal membranes using placental alpha microglobulin-1 immunoassay, Nitrazine stick and visual inspection of postenor fornix for liquour drainage to determine the accuracy of PAMG-1 compared with standard diagnostic tests. Individual patient had a pre-test questionnaire. The data generated were analysed using basic descriptive statistics.*

**Main Outcome Measures-***Placental alpha **microglobulin** -1 immunoassay and standard diagnostic methods (Nitrazine stick and pooling of liquour) method of rupture of fetal membranes.*

**Results-** A total of 320 patients were recruited. 280 out of 320 patients 87.5% had actual ruptured membranes, whereas 40 patients 15.5% had intact membranes. Placental alpha microglobulin-1 immunoassay had sensitivity of 99.2% specificity of 89.36%, positive predictive value of 95.45%. In Negative predictive of value 42..9% (6/14). In contrast, the conventional standard diagnostic methods (pooling, and Nitrazine test) confirms ROM with a sensitivity of 81.2% (125/154), specificity of 50% (3/6) , positive predictive value of 97.7 %(125/128) and negative predictive value of 9.4%(3/32) .

**Conclusion-** The PAMG-1 immunoassay was a statistically better test in detecting ROM compared to the conventional standard diagnostic methods 94.8%(146/154) versus 81.2%(125/154)  $p < 0.000$  Fisher's test

**Key words:** Amnisure<sup>(R)</sup> Nitrazine, Pooling of liquor, rupture of fetal membrane accuracy.