Evaluation of a rapid test for detection of insulin-like growth factor binding protein-1 (IGFBP-1) for the diagnostic of premature rupture of membranes

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Premature rupture of membranes (PRM) is a common obstetrical event which may be the cause of severe materno-fetal complications. In the case of subclinical forms, a rapid biological diagnostic is of high value. The detection of IGFBP-1 (insulin-like growth factor binding protein-1) in cervicovaginal secretions (by immunochromatographic dipstick) is a recognized, rapid and reliable test.

Our study focused on the analytical validation of Amnioquick® strips (Biosynex, France) and on comparison to the Actim® PROM test (Biochemia Medix, Finland distributed in France by Fumouze) currently used in routine laboratory of Medical Biochemistry Laboratory, CHU Estaing of Clermont-Ferrand.

Conclusion

Amnioquick® strips have excellent repeatability and are more sensitive than the Actim® PROM test (factor 4 to 8). Nevertheless, it appears that lowering the threshold does not bring more information in terms of correlation with pregnancy outcomes of women tested for premature rupture of membranes. Other strategies using the combined detection of new markers with IGFBP-1 could be an interesting development, to associate a higher sensitivity while maintaining excellent correlation with clinical outcome.