



## SUMMARY

This is a prospective observational study was carried out in department of Obstetrics and Gynecology and outpatient clinic. Benha Insurance hospital, The Ethical committee at Benha university approved the study in April 2009.

The period of the study was from April 2009 to Feb.2010.

The study included 100 pregnant women between 28-34 weeks of gestational age were subdivided into two groups of women.

**Group (1):** Included 50 pregnant women with recent PPRM. All of them should have Single intrauterine pregnancy, history of watery vaginal leak and visualization of amniotic fluid leakage by examination.

**Group (2):**Included 50 pregnant women were attending the outpatient for routine antenatal care and they have no history of recent vaginal leak ,Single intrauterine pregnancy and they were not suffering from any pregnancy complication (e.g. hypertension with pregnancy, gestational diabetes.....).

All pregnant women of both groups were subjected to full history, general examination, abdominal examination, sterile



cusco-speculum examination and abdominal U/S to assess fetal viability, amount of liquor and placental position.

The PPROM group had definite rupture of membranes confirmed by cusco-speculum examination and sample was taken directly from post fornix while patient in lithotomy position using sterile syringe while in control group we used 3 mL sterile saline for washing of post fornix after insertion of sterile cusco-speculum by irrigation aspiration technique.

3 drops of collected sample were applied on (One Step Cassette Style HCG Urine Pregnancy Test, IND Diagnostic Inc-Canada.).

Its sensitivity is 20 mIU/mL

The 2 groups were compared as regard to maternal age, parity and residence.

We found that in PPROM group : the qualitative  $\beta$ -hCG test was +ve in 45 patients and was negative in 5 patients 90% true +ve.

In the control group: the test was true -ve in 49 cases while was false +ve in 1 case 98% true -ve and 2% false +ve.



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The sensitivity, specificity, PPV, NPV and accuracy of qualitative  $\beta$ hCG test in the vaginal washing fluid in detection of PPROM were 90%, 98%, 97.8% ,90.7% and 94% respectively.

The minimal cost and the rapid results of qualitative pregnancy test to aid in the diagnosis of PPROM is attractive and this technology is available and easy to use and provide immediate and accurate bedside diagnosis .

Further confirmation by rising the test sensitivity may be useful and the gold standard is amniocentesis with dye infusion but it is invasive test which expose mother and fetus to risk.