

FIRST TRIMESTER PREGNANCY ASSOCIATED PLASMA PROTEIN-A(PAPP-A) AS A PREDICTOR OF PRE- ECLAMPSIA AND FETAL GROWTH RESTRICTION (FGR)



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INTRODUCTION

- FGR and pre-eclampsia are major obstetrics complications with perinatal morbidity and mortality.
- Placental pathology can lower PAPP-A levels which can be used as a biochemical marker.
- Low PAPP-A levels with normal chromosomes, descriptive of poor early placenta resulting in complications

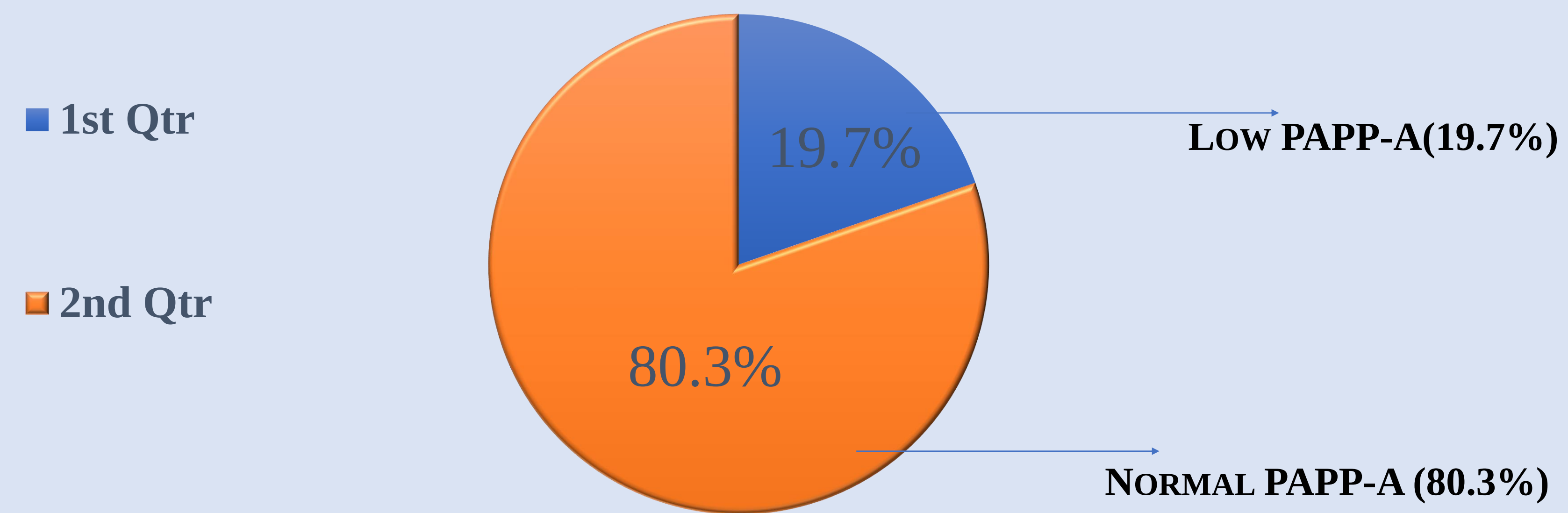
AIM

- To determine whether value of first trimester maternal serum PAPP-A level can be used as a predictor of pre-eclampsia and FGR.

METHOD

- Patients underwent 1st trimester Dual marker test.
- PAPP-A. Multiple of median (MoM) calculated and value less than or equal to 0.5 MoM was considered low.
- All patients followed till delivery and association of PAPP-A value with FGR and Pre-eclampsia seen..

RESULTS



- In this study 69 patients out of 350 cases had low serum PAPP-A levels forming 19.71%.
- Out of 69 cases with low PAPP-A levels 25 cases developed pre-eclampsia ($p < 0.0001$). Out of 278 cases with normal PAPP-A only 3 patients developed pre-eclampsia
- Out of 69 cases with low PAPP-A levels, 20 cases developed FGR forming almost 25% with statistically significant relation ($p < 0.001$). Of 278 cases with normal PAPP-A value only 3 patients developed FGR comprising 1.07%.

DISCUSSION

- It is important to design a screening technique which has good predictive value and is also cost-effective, hence bring down the incidence of maternal and fetal complications.
- More recent studies in concordance with ours have shown that the first trimester low levels of PAPP-A are associated with not only risk of Down's syndrome but also adverse effects due to placental insufficiency.

CONCLUSION

- Low level of first trimester serum PAPP-A have statistically significant association with development of pre-eclampsia and FGR in third trimester of pregnancy.