



Ministry of Health & Family Welfare
Government of India

RCOG WORLD CONGRESS 2022

YOLKSAC DIAMETER AS A PREDICTOR OF PREGNANCY OUTCOME AT 2ND TRIMESTER

Sheethal Annaldesh* DNB OBG trainee,RGGWCH Pondicherry, M. Subashini DGO DNB OBG specialist grade II,RGGWCH Pondicherry,
Samjee Smile DMRD, DNB Radiology specialist grade I,IGGH &PGI Pondicherry



INTRODUCTION

- No single ultrasonographic measurement of different anatomical features in 1st trimester has shown to have high predictive value for determining early pregnancy outcome.
- Hence this prospective observational study was conducted to assess predictive value of YSD in pregnancy outcome

AIM AND OBJECTIVES

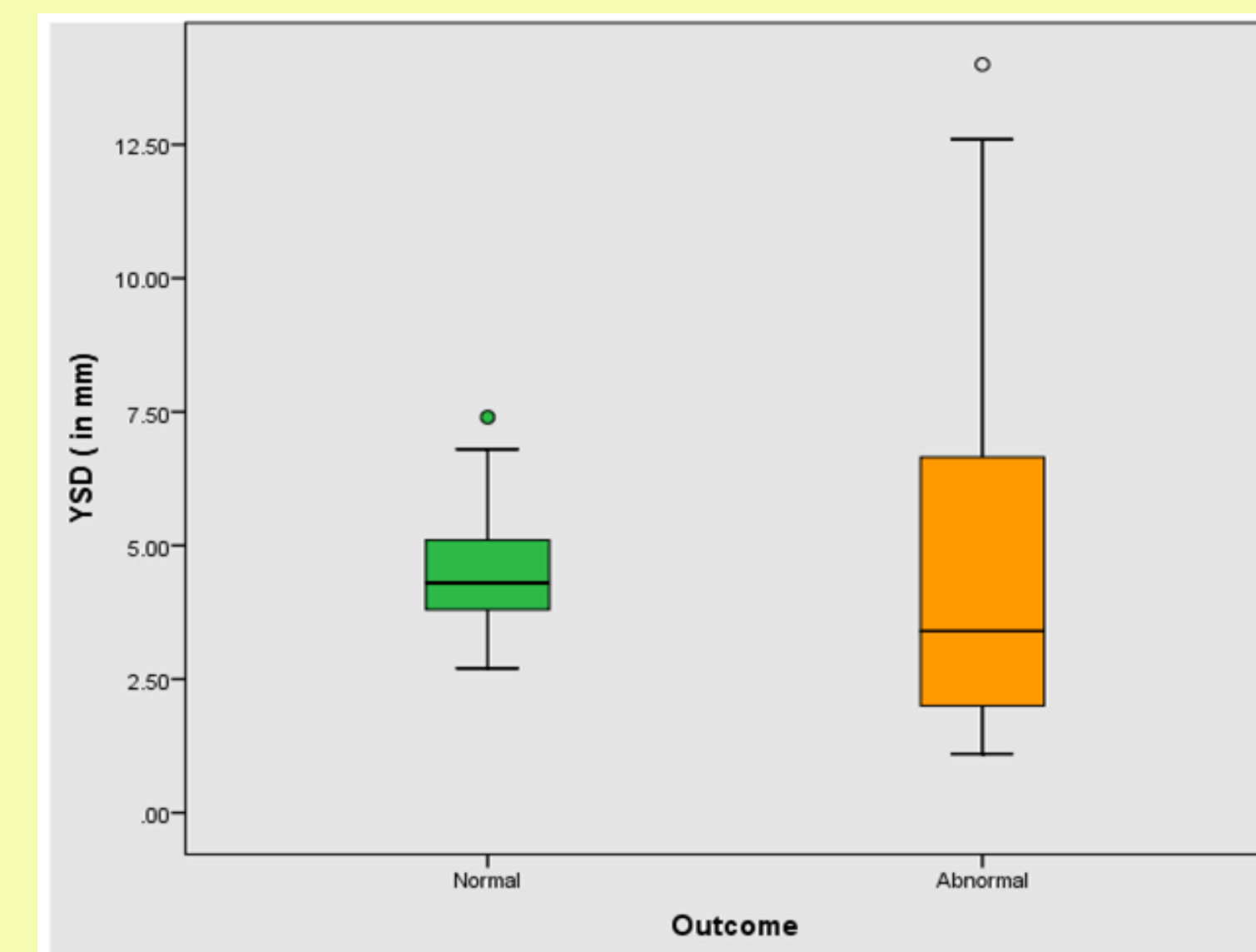
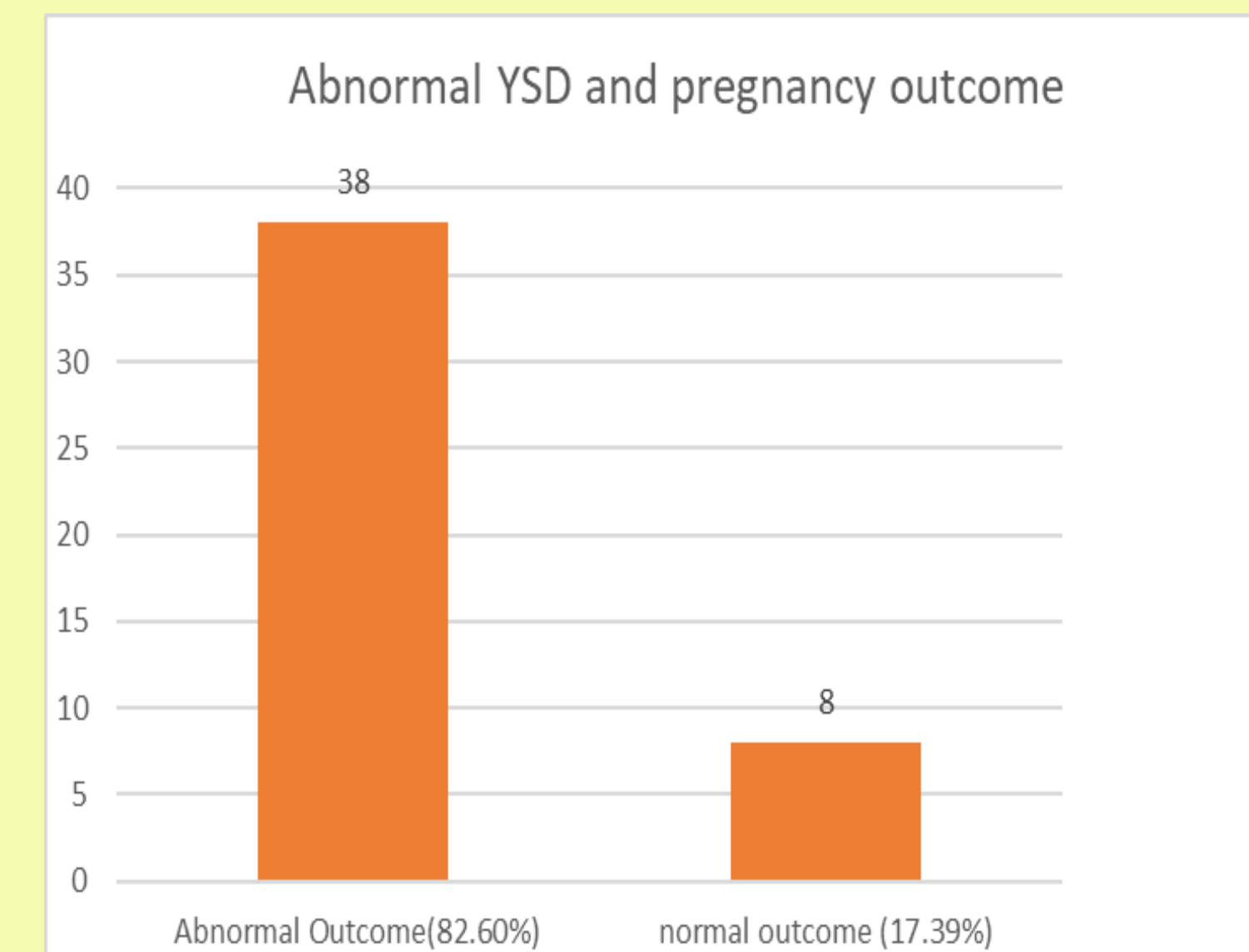
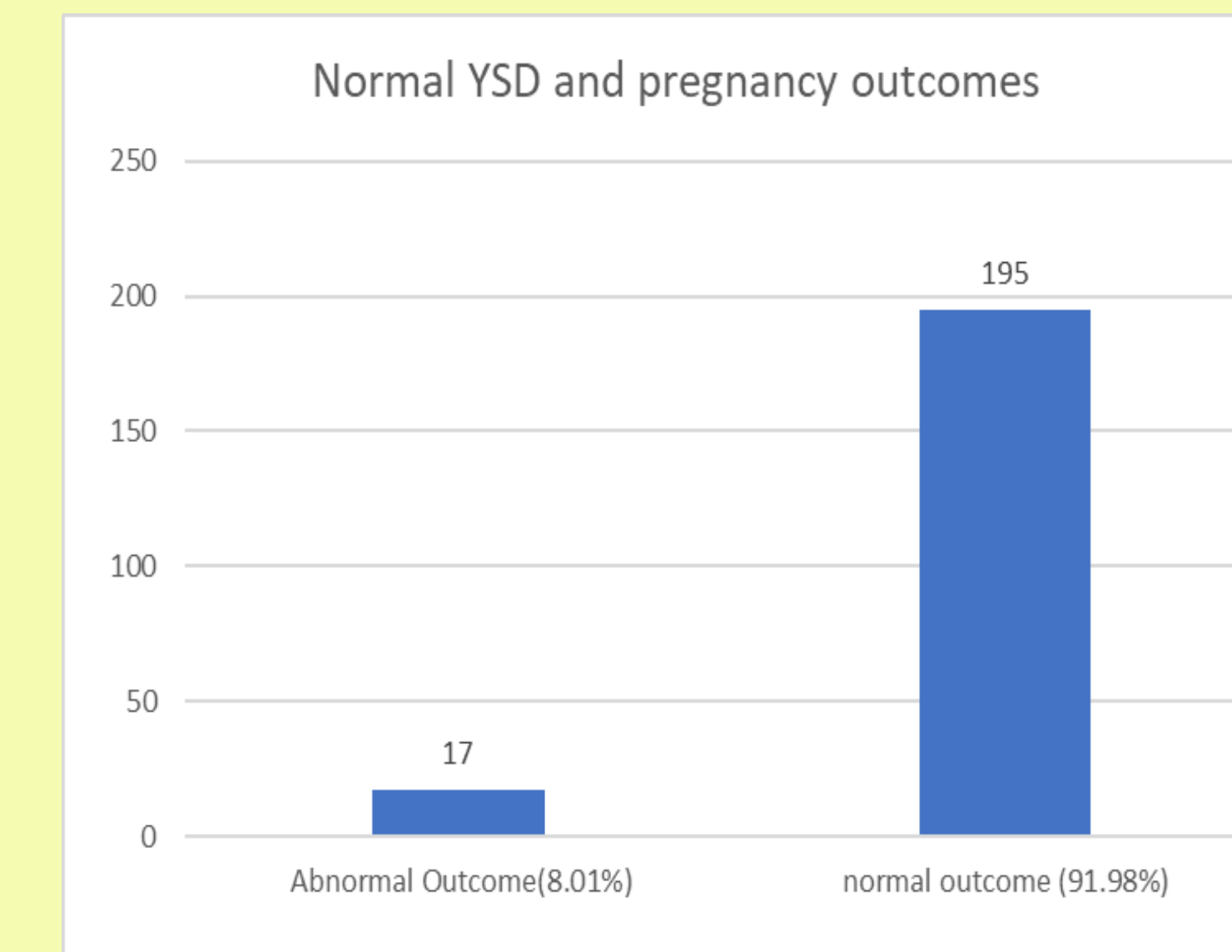
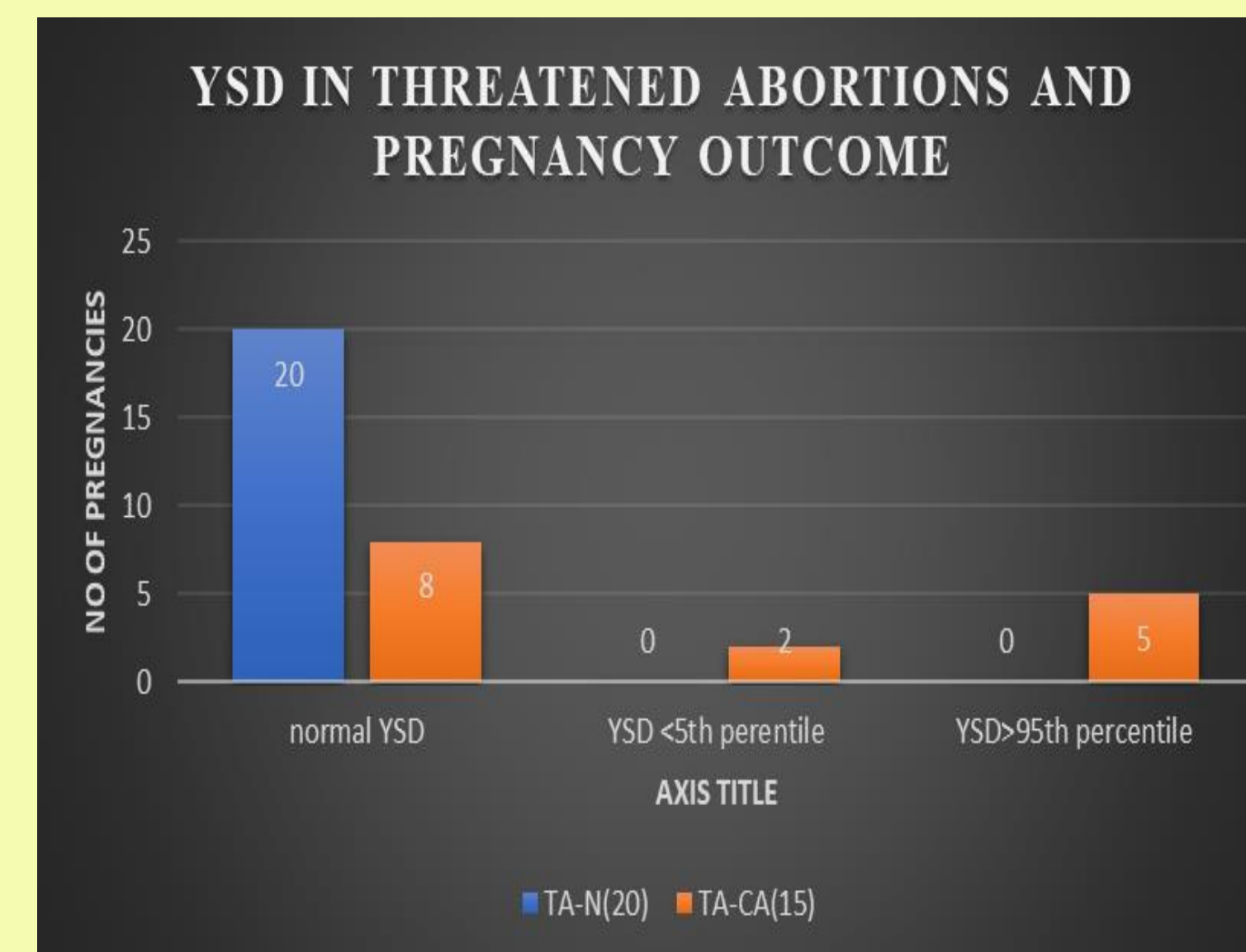
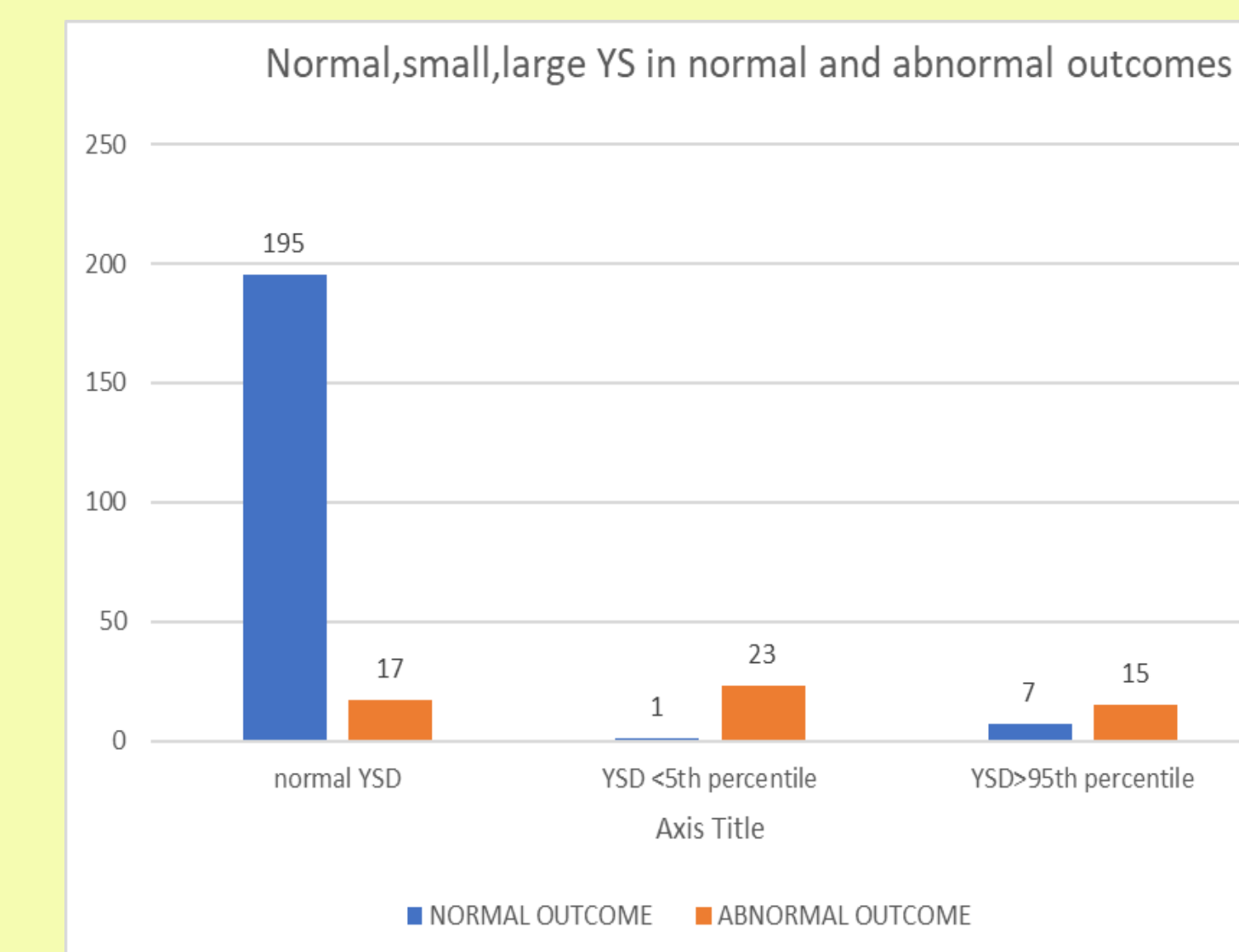
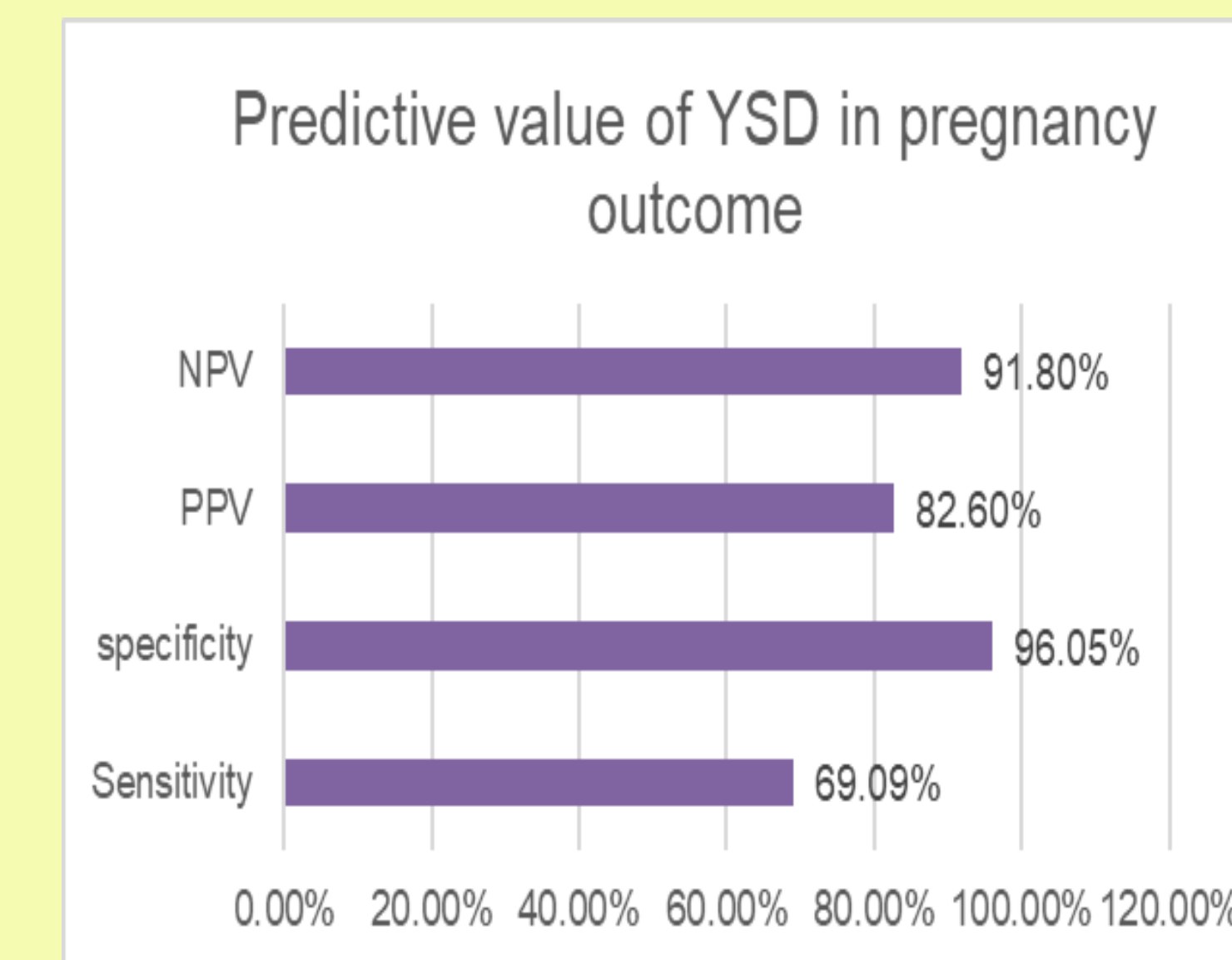
- To study YSD at 5 to 10 wks of gestation and pregnancy outcome at 24 wks.
- To study predictive value of abnormal YSD in abnormal pregnancy outcome.
- Correlation of YSD and CRL,CA,GSD

METHODS

- Study was conducted in RGGWCH, Pondicherry. 258 pregnant women were studied. A detailed history was obtained, TVS done to measure GSD,YSD,CRL and CA.
- And patients were followed till 24 weeks. Outcome was considered normal if pregnancy continued beyond 24 wks and abnormal (abortions , anomalies)

RESULTS

- 17.9% pregnancies had abnormal YSD and 21.31% had abnormal outcomes.
- Minimum and maximum YSD were 1.1mm and 14mm.



- 57.14% of abnormal yolks sac diameters were <5th percentile, 52.38% were >95th percentile
- Sensitivity and NPV was highest at 9⁺ to 10 wks , specificity and PPV was highest at 8⁺ to 9 wks.
- All anembryonic gestations had abnormal YSD. 1 pregnancy with YSD 7.8 mm had anomalous fetus.
- There is positive correlation between YSD, CRL, GSD and gestational age.
- The predictive value of abnormal YSD in predicting abnormal outcomes in threatened abortions is significant at p value of 0.002

DISCUSSION

- The criteria for defining abnormal YSD was different in different studies. In present study it was reference ranges from George I et al¹ study.
- Specific ranges were considered at each gestational week which yielded more precise and reliable results.

CONCLUSION

The present study concludes that

- YSD as a predictor of pregnancy outcome was significant at all gestational ages from 6 to 10 weeks with highest significance at 9⁺ to 10 weeks
- Abnormal YSD was significant in predicting abnormal outcomes in threatened abortions
- Small yolksacs had more significant predictive value for abnormal outcomes

REFERENCES

- Normal Ranges of Embryonic Length, Embryonic Heart Rate, Gestational Sac Diameter and Yolk Sac Diameter at 6–10 Weeks, George I. Papaioannou Argyro Syngelaki Leona C.Y. Poon Jackie A. Ross, Kypros H. Nicolaides, Fetal Diagn Ther 2010;28:207–219.