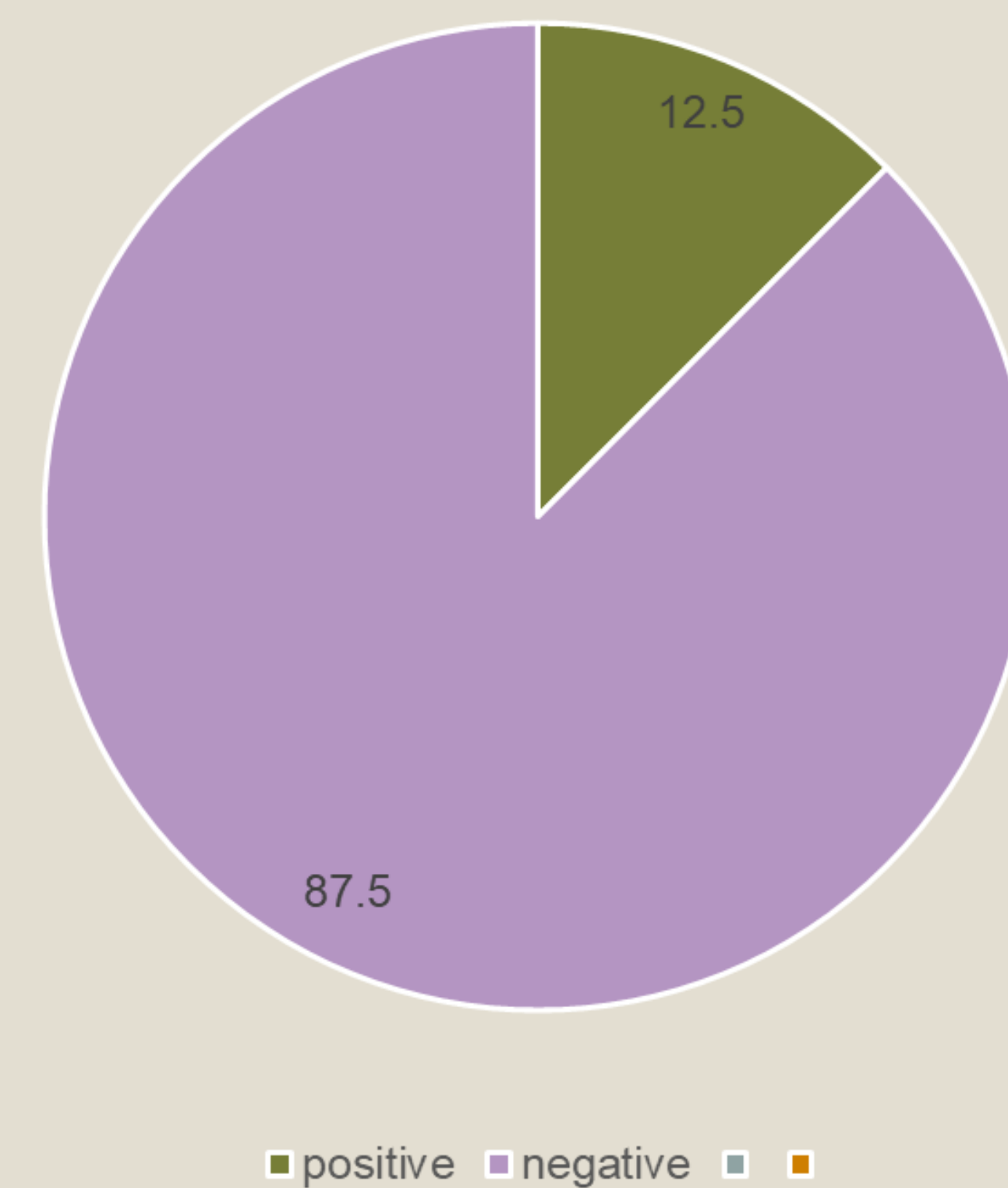


COMPARISON OF MODIFIED 75g ORAL GLUCOSE TOLERANCE TEST WITH 75g ORAL GLUCOSE TOLERANCE TEST IN SCREENING OF GESTATIONAL DIABETES MELLITUS

❑ INTRODUCTION

- A lack of tolerance for glucose in pregnancy is known as gestational diabetes mellitus (GDM).
- GDM has serious risks and associated complications for the mother and fetus, which is why it is very crucial to screen a pregnant woman early so that increased risks of perinatal and maternal morbidity can be minimized.
- An oral glucose tolerance test (OGTT) is the classical tool for screening GDM
- Currently, 75g OGTT (fasting) is the gold standard test for GDM. However, it is unsatisfactory for pregnant women as they have to travel and wait in hospitals for the test in a fasting state.
- On the other hand with modified 75g OGTT women can be diagnosed after feeding as well, and women often prefer 75g OGTT (random).
- We hypothesized that if GDM can be equally diagnosed with both tests, the need for fasting by pregnant women can be tackled.

Frequency of GDM according to modified OGTT (75 g) in the study patients (n=136)



❑ METHODOLOGY

- In this study total of 136 pregnant women were selected from the OPD of MCH clinical settings at Pakistan Institute of Medical Sciences, Islamabad. This cross-sectional validation study was completed in a period of 6 months w.e.f. 01/01/2023 to 30/06/2023.
- Women between 22 and 26 weeks gestation who were initially investigated with modified OGTT 75 g at 22-24 weeks gestation for glucose intolerance later at 24-26 weeks were called again for the fasting OGTT 75 g and again glucose test was done in the same patient.
- The outcome was judged as predictive prevalence of both tests in picking GDM. Ethical clearance was taken from the Hospital Ethics Committee. A written informed consent was also administered before enrollment of the study subjects. SPSS 23.0 software version was utilized for analysis.

	No. of cases	Percentage
Family h/o diabetes		
Yes	16	11.8%
No	120	88.2%
H/o GDM in previous pregnancies		
Yes	0	
No	136	100%
H/o macrosomic baby		
Yes	3	2.2%
No	133	97.8%

Diagnostic accuracy of modified OGTT 75 g in predicting GDM between 22-26 weeks gestation keeping fasting OGTT 75 g as gold standard (n=136)

	Value
Sensitivity	84.6%
Specificity	95.1%
PPV	64.7%
NPV	98.3%
Overall diagnostic accuracy	94.1%

❑ CONCLUSION

- Modified OGTT 75 g and fasting OGTT 75g have been found equivalent in the screening of GDM in women having a gestational age of 22 to 26 weeks.
- Keeping fasting as a gold standard method for screening GDM, the modified OGTT test showed a very high sensitivity and specificity in this study.

Comparison of average glucose level in modified OGTT and fasting OGTT groups (n=136)

	Modified OGTT	Fasting OGTT	P-value
Glucose level(mg/dl)			
Mean	95.6 ± 28.0	102.1 ± 25.7	<0.001

Frequency of GDM according to standard OGTT (75 g) in the study patients (n=136)

