

FP 89111 - EVALUATION OF HYPERTENSIVE RETINOPATHY IN PATIENTS OF ESSENTIAL HYPERTENSION WITH HIGH SERUM LIPIDS

CHIEF AUTHOR: Dr. P.PRIYANKA, P.G
CO-AUTHOR: Dr B.DHARMARAJU M.S
PROFESSOR OF OPHTHALMOLOGY
RANGARAYA MEDICAL COLLEGE



FINANCIAL DISCLOSURE:

- NO FINANCIAL INTEREST



- **INTRODUCTION**

- Hypertensive retinopathy is one of the vascular complications of essential hypertension.
- Essential hypertension is of unknown etiology and is diagnosed when systolic blood pressure is >140 mmhg and diastolic blood pressure is >90 mmhg
- Auto regulation of retinal circulation fails as blood pressure increases beyond critical limit



- Hyperlipidemia or dyslipidemia are known to be an important risk factor in hypertensive patients
- There can be an increased incidence of hypertensive retinopathy with increase in total cholesterol and triglycerides
- Hypertensive retinopathy is considered as one of the indicators for target organ damage



- **AIMS AND OBJECTIVES**

- To evaluate different stages of hypertensive retinopathy fundus findings and to correlate findings with serum lipid profile in essential hypertensives



- **MATERIALS AND METHODS**

- A prospective study was carried out on total 50 cases of patients who were diagnosed to have essential hypertension after thorough evaluation by the physician and having high serum lipids in a tertiary care hospital were examined from december 2019 to august 2021



- **INCLUSION CRITERIA**

Patients who were diagnosed to have essential hypertension after detailed evaluation by physician and having high serum lipids

- **Exclusion criteria:** Patients suffering from diabetes, high myopia, with hazy ocular media, other retinal vascular diseases, secondary hypertension.

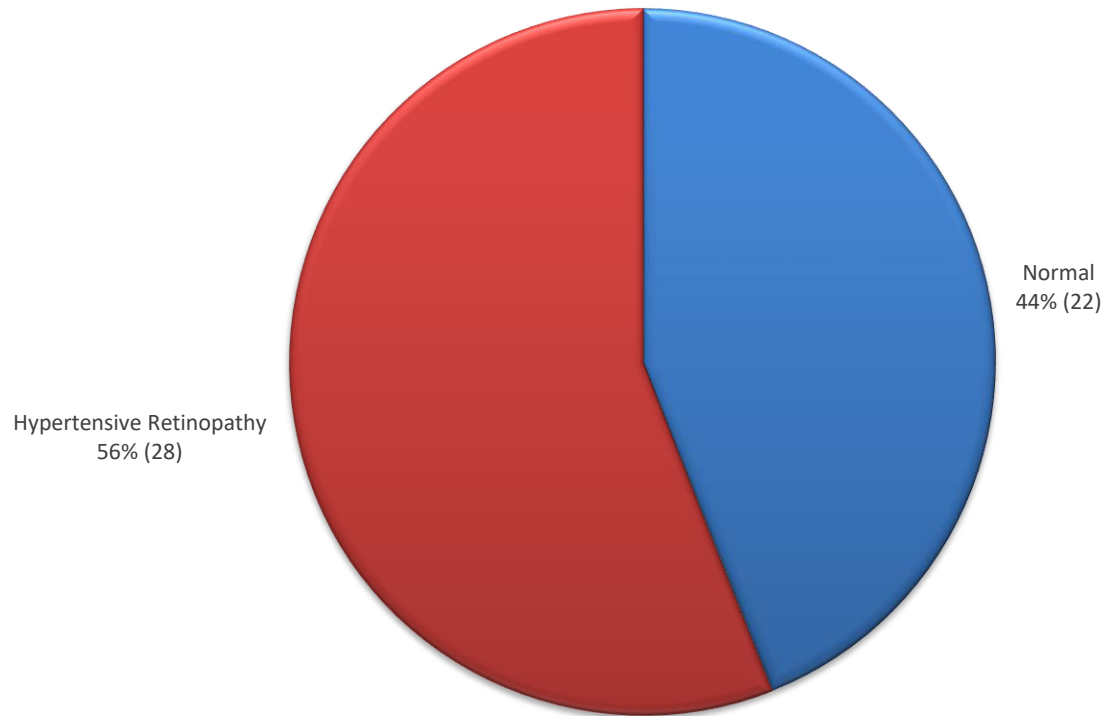


RESULTS

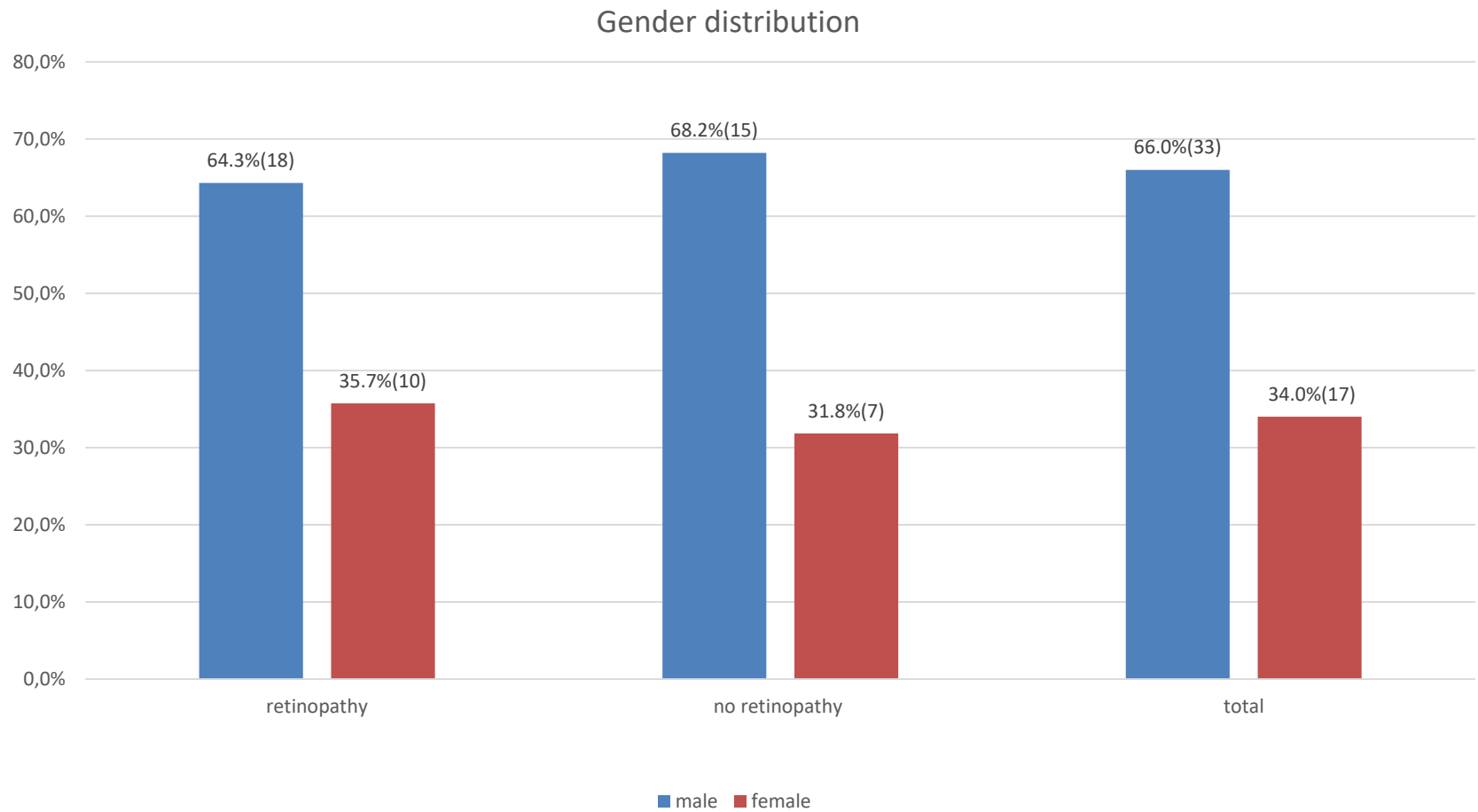


PREVALENCE OF HYPERTENSIVE RETINOPATHY

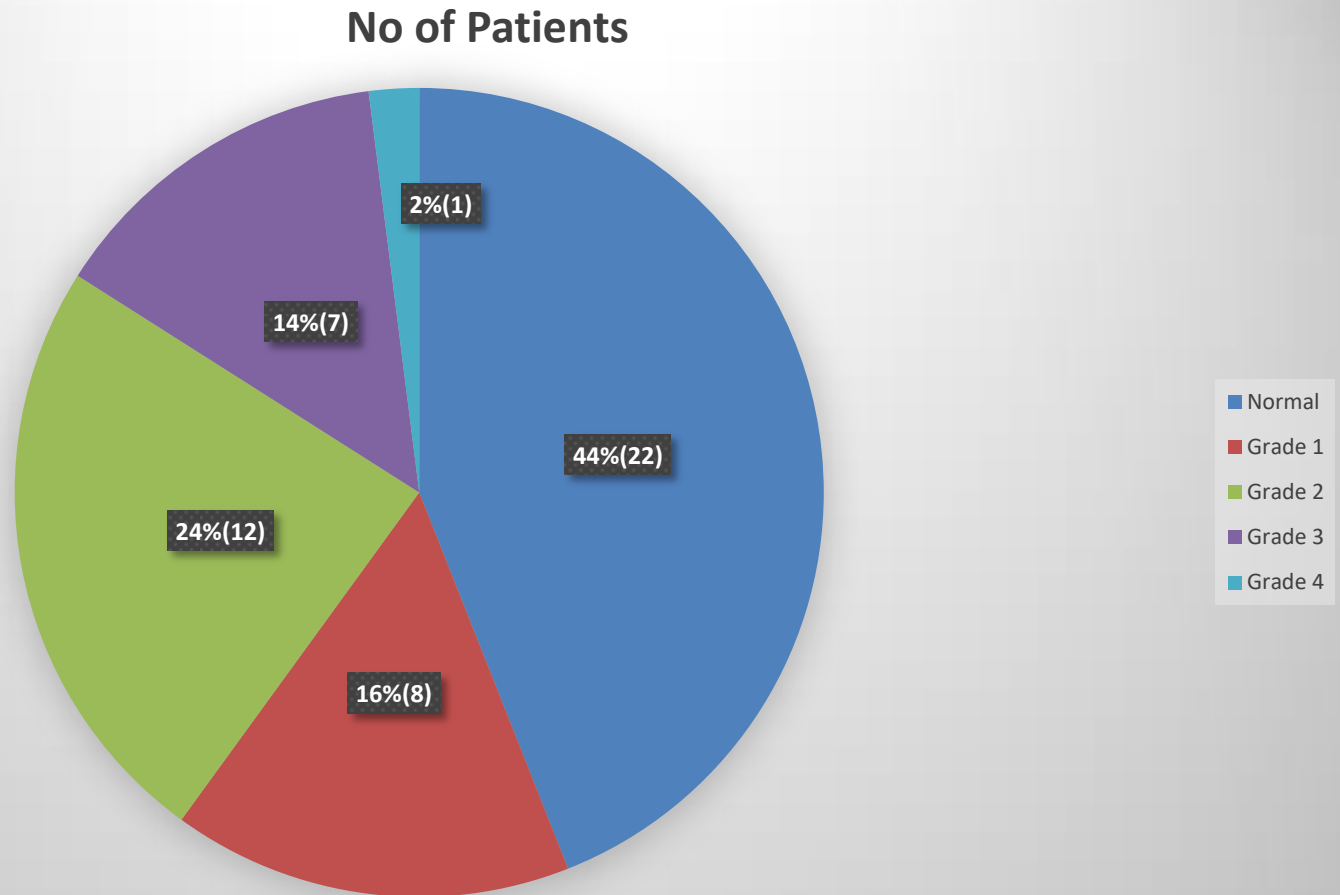
Prevalence of Hypertensive Retopathy



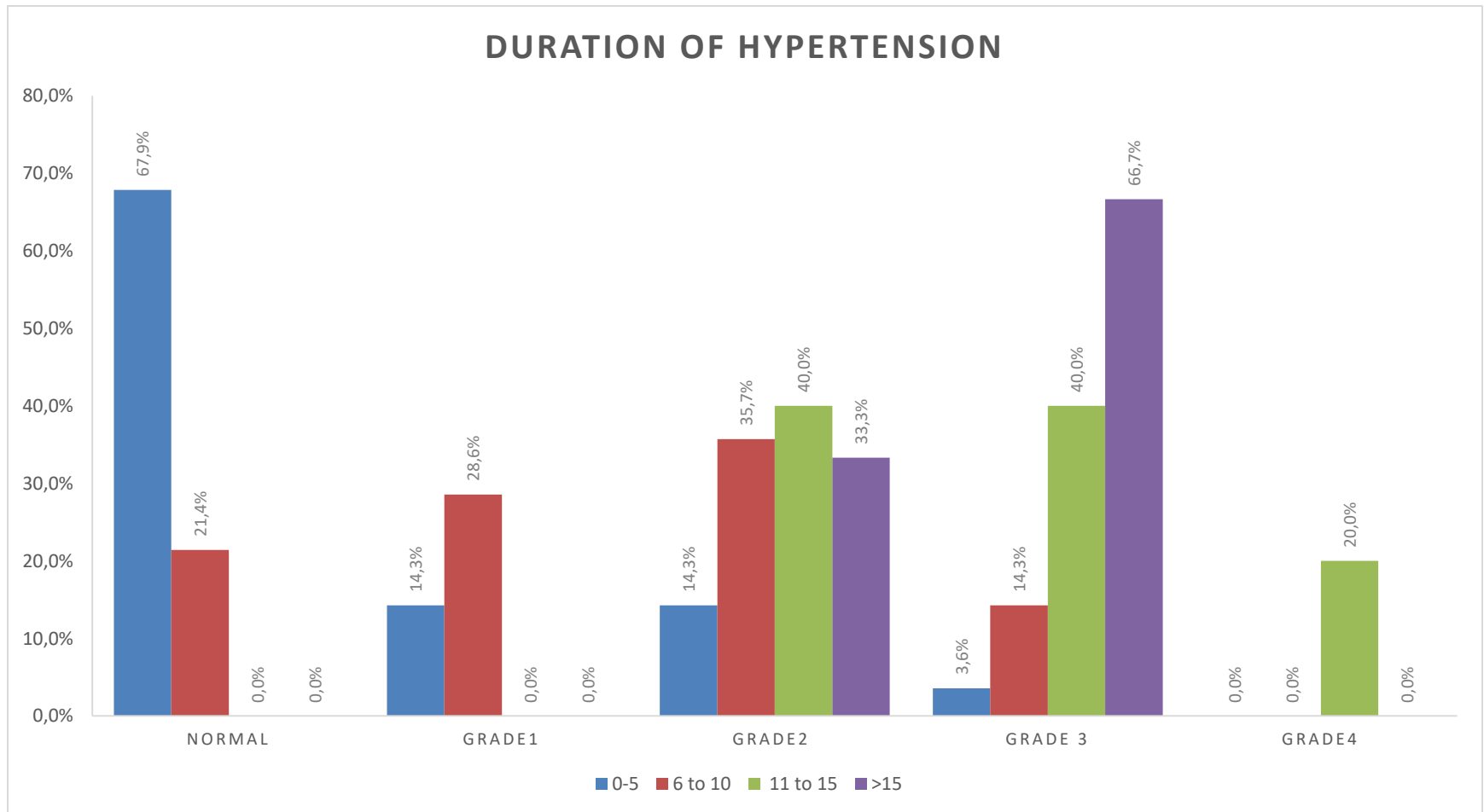
SEX DISTRIBUTION OF PATIENTS



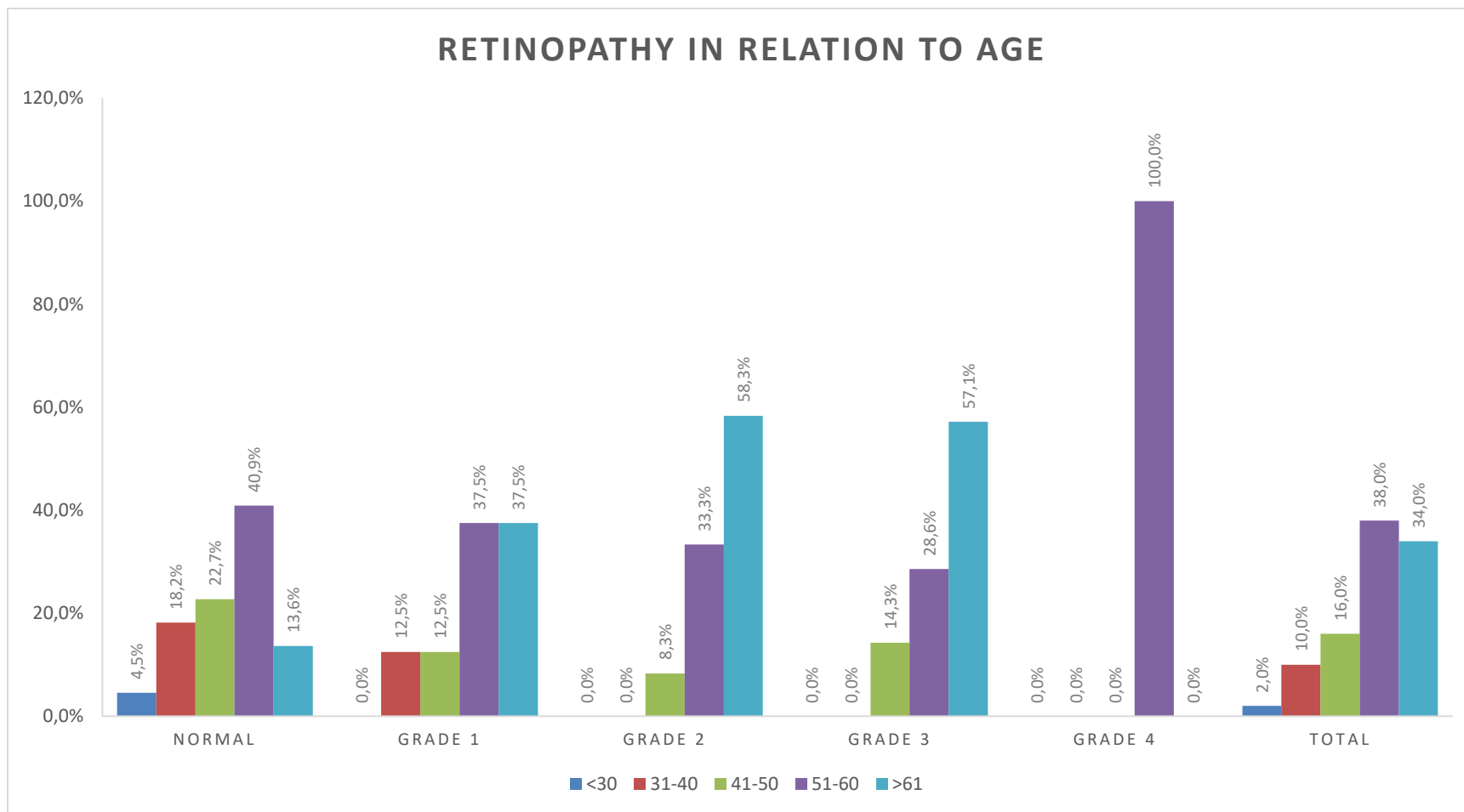
GRADES OF HYPERTENSIVE RETINOPATHY



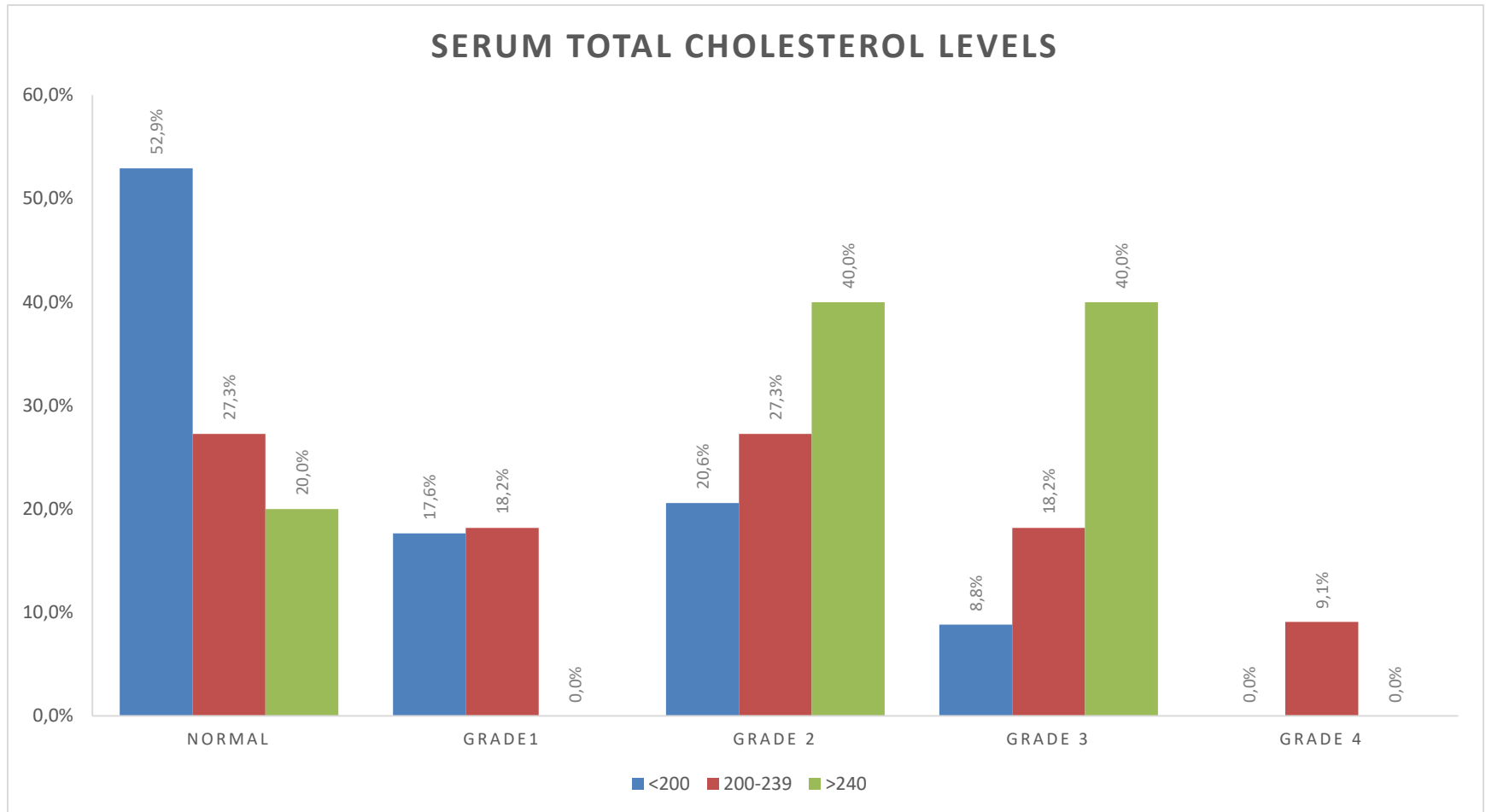
RELATION BETWEEN RETINOPATHY AND DURATION OF HYPERTENSION IN YEARS



RETINOPATHY ACCORDING TO AGE OF THE PATIENTS



RELATIONSHIP OF RETINOPATHY WITH SERUM TOTAL CHOLESTEROL LEVELS

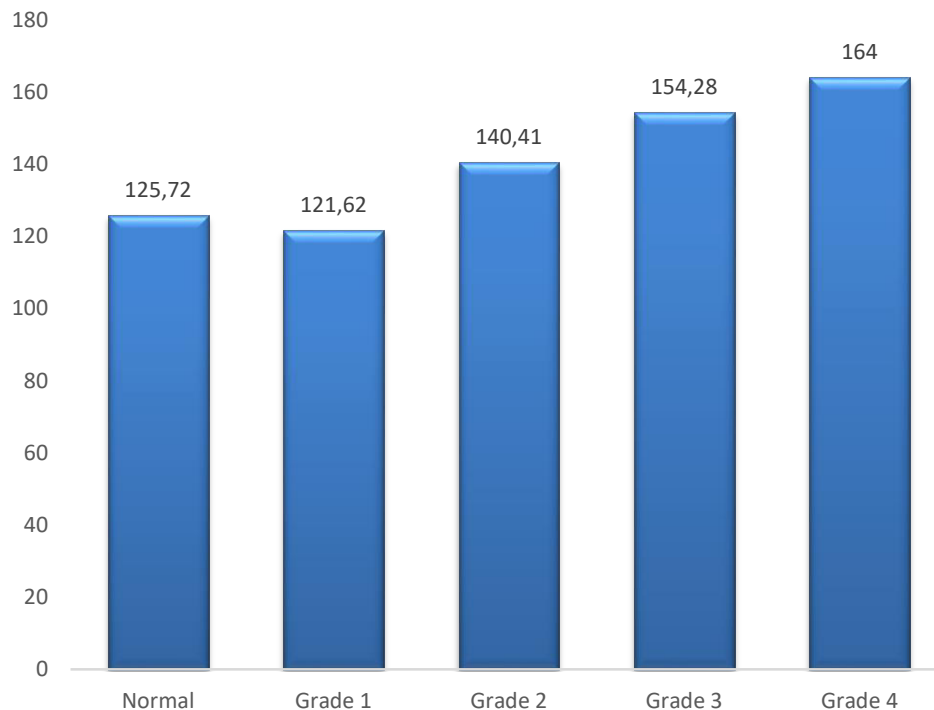


Chi square test = 50 , $p = <0.0001^*$, Statistically significant



RELATIONSHIP BETWEEN GRADES OF RETINOPATHY AND LDL

Relationship between Grades of retinopathy and LDL



■ Relationship between Grades of retinopathy and LDL

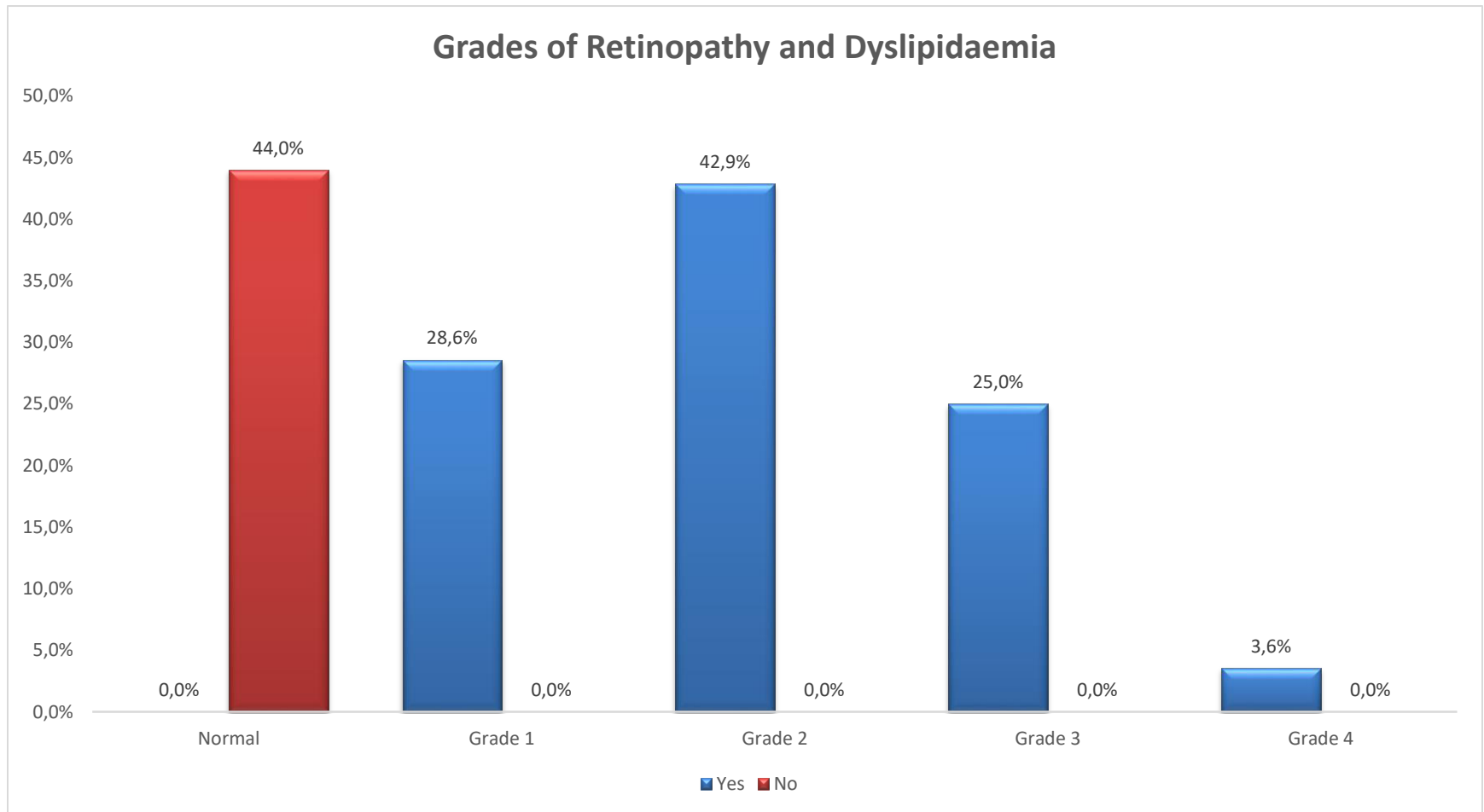
Relationship between Grades of retinopathy and LDL

	Mean \pm SD	P value
Normal	125.72 \pm 18.36	F test = 3.41 P = < 0.0001*
Grade 1	121.62 \pm 9.51	
Grade 2	140.41 \pm 28.51	
Grade 3	154.28 \pm 32.45	
Grade 4	164 \pm 0	

Chi square test = 50 , p= <0.0001*, Statistically significant



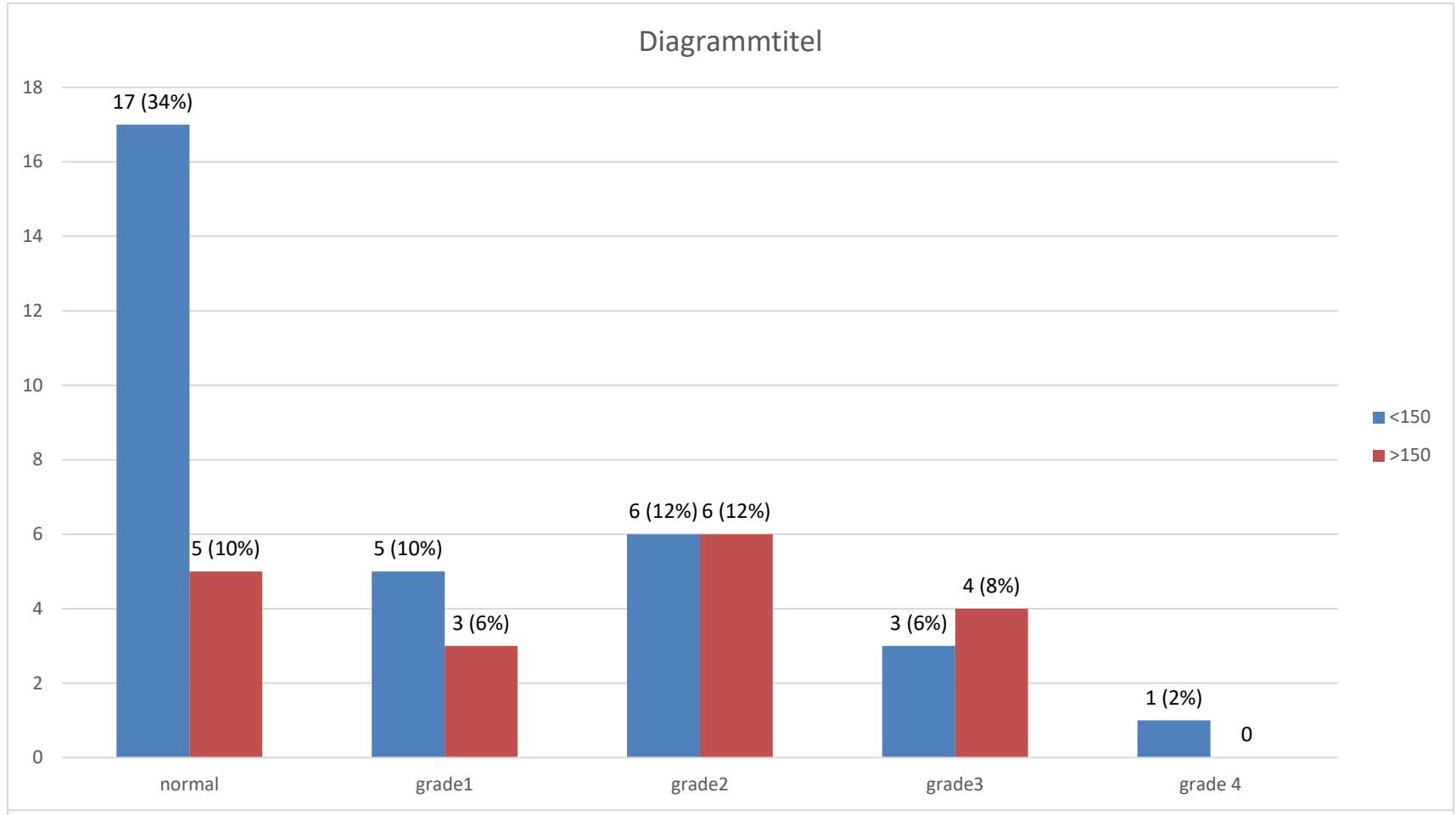
REALTIONSHIP OF GRADES OF RETINOPATHY AND DYSLIPIDEMIA



Chi square test = 50 , $p = <0.0001^*$, Statistically significant



Relationship between grades of retinopathy and triglycerides



DISCUSSION

- Study was similar to rajendra p gupta etal, and preethi p hedge etal,except for triglycerides
- Statistical significant correlation between hypertensive retinopathy fundus findings with total cholesterol,LDL,dyslipidemia.
- This study doesnot correlate triglycerides with fundus changes of retinopathy probably due to limited sample size taken



CONCLUSION

- There is statistical significant correlation between hypertensive retinopathy and dyslipidemia



References

- American academy of ophthalmology 2020-21
- Walsh JB hypertensive retinopathy description
- Myron yanoff jay s duker 5 th edition
- Ryans retina sixth edition, andrew p. Schachar, c.p wilkinson, david r. Hinton
- Thakur ak, achari v. A study of lipid levels in uncomplicated hypertension indian heart j.2000:52:173-7

