A STUDY ON RETINTIS PIGMENTOSA AS A CAUSE OF BLINDNESS AMONG PATIENTS SEEKING VISUAL DISABILITY CERTIFICATE AT GOVERNMENT GENERAL HOSPITAL,KAKINADA.

Presenting author- Dr KVNS DIVYA

Co Author- Dr. V.MURALIKRISHNA M.S.

- NO FINANCIAL INTERESTS.

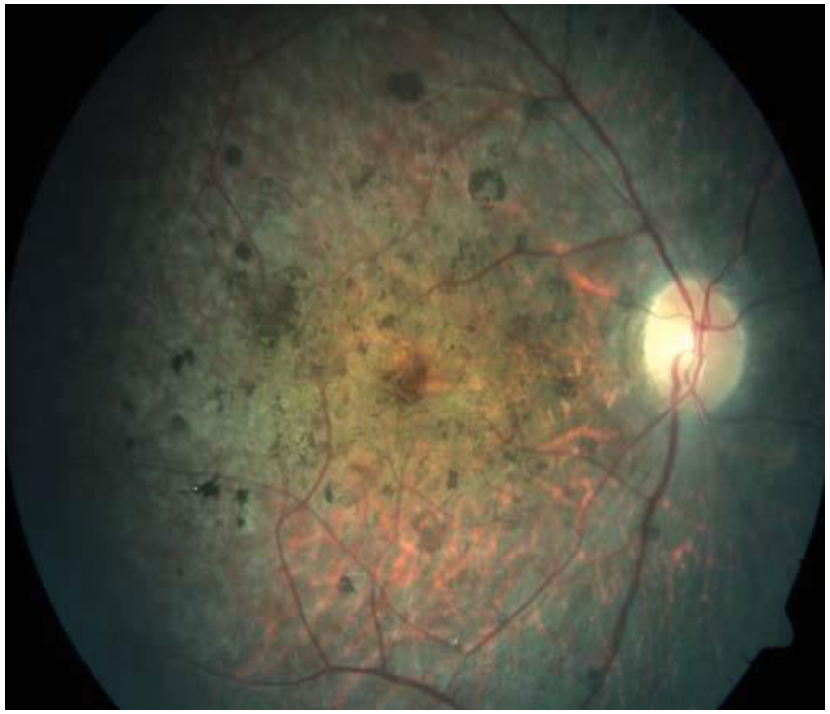
INTRODUCTION

- Blindness is a major public health problem in developing countries like India.
- Some ocular diseases are treatable and some are not.
- Non treatable diseases lead to permanent visual handicap which affect an individual, his/her family & the society.

- The registration as blind/low vision in India is voluntary and it is certified by an Ophthalmologist.
- According to guidelines of the Ministry of Social Justice and Empowerment, Government of India , the minimum degree of disability should be 40% for an individual to be eligible for any concessions or benefit.

- Among the non treatable causes of retinal blindness, Retintis Pigmentosa is one causing permanent blindness.
- Retinitis pigmentosa is an inherited, degenerative eye disease that causes severe visual impairment due to progressive degeneration of the rod and cones in the retina.

- The degeneration affects rods(predominantly) and cones, commences in a zone near the equator of the eye gradually spreading both anteriorly & posteriorly.
- Characteristic symptoms- defective vision in the dark(nightblindness/nyctalopia).
- The classic signs in the fundus are waxy disc pallor, attenuated blood vessels and bony corpuscle pigmentation



- Visual fields- concentric contraction, especially marked if the illumination is reduced.
- symptomatic only when significant peripheral field has been lost and the field loss reaches the stage of ‘tunnel vision’.
- Initial defects are seen as scotomas between 30 and 50 degrees.
- Superior field tends to be affected early and more severely.
- Central vision can be preserved for a long time while an island of temporal field could be the last field left behind.

- AIM OF THE STUDY :
- Study aimed to record the prevalence of Retinitis Pigmentosa in patients attending Government General Hospital,Kakinada for blind certificate in relation to age,sex, percentage of disablity and association with syndromes.

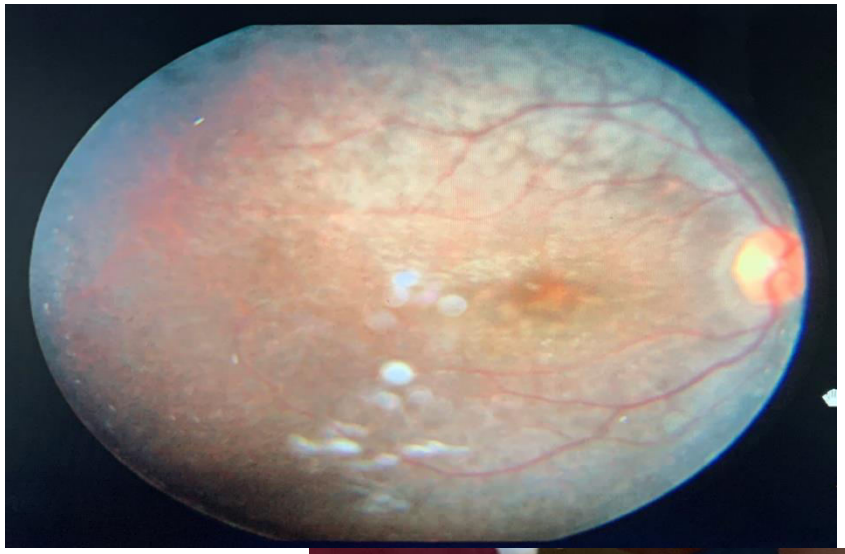
MATERIALS AND METHODS

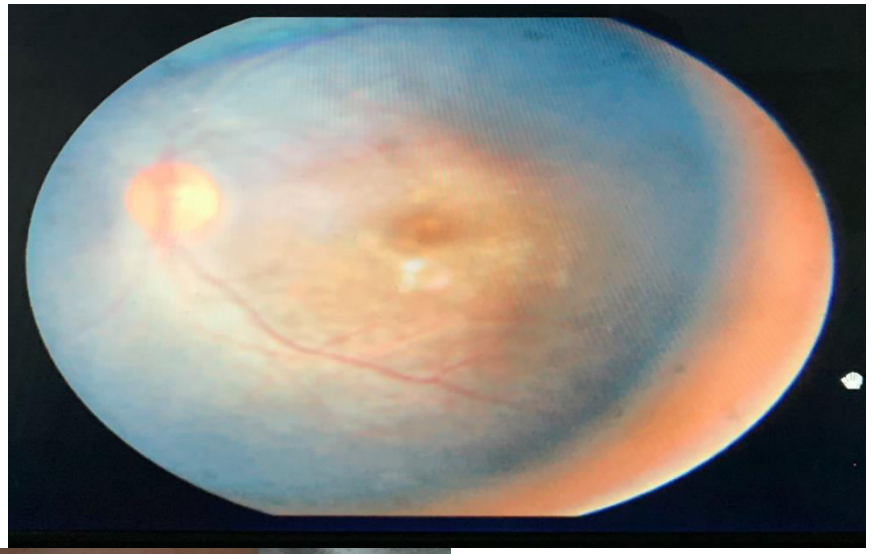
- The study was conducted on 100 patients who attended GGH,Kakinada for blind certificate during the period of January 2021 to August 2021 .
- Patients of all age groups are included.
- All the patients underwent complete ophthalmological examination which included BCVA, slit lamp examination , fundoscopy, visual field testing by Humphrey field analyser.

RESULTS

- Out of 100 patients, 16 patients had Retinitis Pigmentosa with involvement of both eyes.
- Of these 16 patients, 10 were males and 6 were females indicating that males were more commonly affected than females.
- 5 patients had 40% disability, 1 patient had 75% disability and 10 patients had 100% disability.
- All age groups were included in the study, and the peak age of presentation was 31-40years group.

- Of these 16 cases, 2 cases were syndromic RP both being Lawrence- Moon- Biedl -Bardet syndrome.
- Of those 2 cases, 1 was 13year old male child and the other was 20 year old female. Both presented with obesity, polydactyly, renal function abnormalities, atypical RP.





Effect of age and gender

AGE (in years)	MALES	FEMALES	TOTAL
0-10	0	0	0
11-20	1	1	2(12.5%)
21-30	1	1	2(13.5%)
31-40	3	2	5(31.25%)
41-50	3	1	4(25%)
>50 years	2	1	3(18.75%)
	10(62.5%)	6 (37.5%)	16(100%)

Percentage disability according to gender

	40%	75%	100%	
MALES	3	-	7	10(62.5%)
FEMALES	2	1	3	6(37.50%)
	5(31.25%)	1(6.25%)	10(62.5%)	16(100%)

	NON SYNDROMIC RP	SYNDROMIC RP
MALES	9	1
FEMALES	5	1
	14(87.5%)	2(12.5%)

DISCUSSION

- RP is one of the non treatable causes of blindnes, with a high prevalence in southern India.
- In our study conducted on 100 patients, 16 (16%) patients were found to have RP.
- In a study conducted by Joshi et al in central India among patients attending OPD for blindness certificate, reported that RP constituted 15.05% of blindness.
- In a similar study by Ravi babu et al in Guntur district showed that RP constituted 13% of blindness.

- Of these 16 patients,10 (62.5%) were males, 6 (37.25%)were females , indicating that RP was more common in males.
- Our results showed peak age of presentation as 31-40 years (31.25%).
- In a similar study conducted by Ravi et al showed the peak age of presentation was 21 to 30 years.

- Regarding the percenatge of disability, 5 patients(31.25%) had 40% disability, 1 (6.25%) had 75% disability and 10 (62.5%) had 100% disability.

BETTER EYE	WORSE EYE	% IMPAIRMENT
6/18-6/36	6/60 to NIL	40%
6/60- 4/60 or field of vision 10-20*	3/60 to NIL	75%
3/60-1/60 or field of vision <10*	F.C at 1 ft to NIL	100%
F.C at 1 ft to nil or field of vision <10*	F.C at 1 ft to NIL	100%

- Out of 16 RP cases, 10 cases were from rural areas and 6 from urban areas.
- The high prevalence of RP in rural areas is due to consanguinous marriages.
- Nirmalan et al studied the effect of consanguinity on eye diseases with potential genetic etiology in Andhra Pradesh where parental conanguinity was reported by 1822 rural subjects and 782 urban subjects.

CONCLUSION

- Retinitis Pigmentosa is the most common pigmentary retinal dystrophy.
- Studies reported a higher prevalence in South Indian population than in other parts of India.
- Role of consanguinous marriages in India must be brought forward in this context.
- RP is an inherited disease that runs in the families. Since it is one of the non treatable causes of blindness, it is vital to reduce the prevalence, hence we need to concentrate on counseling to reduce consanguinous marriages.

REFERENCES

- 1.Joshi RS.Cuases of visual handicap amongst patients attending outpatient department of a medical collegefor visual handicap certification in central India. Journal of clinical Ophthalmology and research 2013;;1:17
- 2.NirmalanPK et al.Consanguinity and eye diseases with a potential genetic etiology. Data from a prevalence study in Andhra Pradesh,India.
- 3.Sen et al.prevalence of retinits pigmentosa in south Indian population aged above 40years.
- 4.G.Ravi babu et al. clinical study of prevalence of Retintis Pigmentosa in tertiary care hospital.

- Thank you