## Ocular Characteristics of Patients with Retinitis Pigmentosa in Ibadan, South West Nigeria

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**Introduction:** Retinitis pigmentosa (RP) is an inherited retinal disease affecting the photoreceptors.[1] RP is thought to be rare with a prevalence of 1 in 4000 worldwide. [3] In Nigeria, the prevalence from hospital-based studies varies from 0.31% to 0.69%. [3-7] The classic triad of clinical signs in RP include bone spicule pigmentation, waxy pale disc and attenuated vessels. [1] Varying ocular disorders such as myopia, glaucoma, cataracts, optic disc drusen and keratoconus may be associated with RP.[7,8]Nyctalopia and constricted visual fields occur in RP. Visual impairment may be a debilitating sequelae.[2]The aim of this study was to describe the ocular features of patients presenting with RP at the retina clinic of the University College Hospital, Ibadan, Nigeria.

**Methods:** A retrospective study of all patients with clinical diagnosis of RP seen in the retina clinic of the University College Hospital, Ibadan, Nigeria from January 2018 to June 2022. The demographic data, best corrected visual acuity, presenting complaints and other relevant information were retrieved from patients' notes. Statistical analysis was done with SPSS Version 23.

**Results:** Forty-six (2.4%) of 1911 new patients seen during the study periodat the Retina clinic had a diagnosis of RP. Forty-three patients who had the necessary complete data were studied. Twenty- four (54.8%) of the patients studied were males while 19(44.2%) were females. The male to female ratio was 1.3:1. Sporadic mode of inheritance was the most common and was seen in 60.5% of the patients (Figure 1). Features of typical RP were found in 78.6% of the patients. The predominant complaint was poor vision which was present in 40 (93%) patients (Table 1). Night blindness was the initial complaint in 26 patients (60.5%). Thirty-one (72.1%) patients had visual impairment. In RP patients with visual impairment, maculopathy was the commonest aetiology. Bone spicule pigmentation (Figure 2) was present in all patients with typical RP (78.6%). The commonest refractive error was myopia which was present in 34 eyes (39.5%). Thirty-three (38.4%) eyes had cataracts while features of glaucoma was present in 1 (4.7%) patient. The best corrected visual acuity

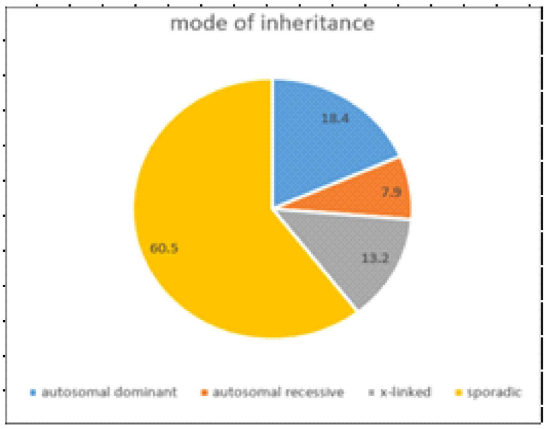


**Figure 1:** Pie chart showing the mode of inheritance of patients with retinitis pigmentosa

**Table 1: Presenting complaints in 43 patients with Retinitis pigmentosa**

| Presenting complaints | Frequency | Percentage (%) |
|---|---|---|
| Poor vision | 40 | 93.0 |
| Night Blindness | 26 | 60.5 |
| Peripheral visual problems | 11 | 25.6 |
| Headaches | 2 | 4.7 |
| Hearing difficulty | 2 | 4.7 |

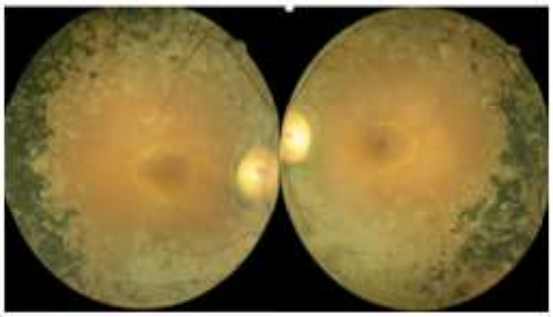

**Figure 2:** Fundus pictures showing bone spicule pigmentation, waxy pale discs and attenuated vessels in a patient with retinitis pigmentosa

(BCVA) in 26 (30.2%) of all eyes studied was >6/18.

**Conclusion:** The prevalence of RP in this study was higher than previous figures ranging between 0.31% and 0.69% from similar studies from various parts of Nigeria.[3-7] A male preponderance was noted and this is similar to other studies but differed from a report from Cameroon.[9] The mean age was identical to what was obtained in a study in Onitsha[3] but lower than other recent multicenter studies in Nigeria.[5,7]Poor vison was the commonest presenting complaint akin to findings in Benin city.[6] Prevalence of visual impairment noted was similar to other local studies in Nigeria.[3,7] There was a high prevalence of cataracts and low rate of glaucoma comparable to findings in China but differing from other studies. [5,9,10] RP is a common inherited retinal disease in our populace. There is an increasing prevalence possibly attributable to increased patient awareness. Molecular and genetic studies are important tools in accurate diagnosis of these patients.

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## Advancing Health Access and Equity: Artificial Intelligence for Diabetic Retinopathy Grading in Nigeria


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