PREVALENCE OF VISUAL IMPAIRMENT AND EYE DISEASE IN CAÑETE, PERU

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INTRODUCTION

In Peru, few reliable epidemiological data on blindness and visual impairment are available;
National estimates — prevalence adult of blindness 2%; main cause = cataracts — moderate visual impairment at 10.2%; main cause = uncorrected refractive error.

IRIS Mundial (IM) is a multidisciplinary, non-governmental organisation (NGO) that collaborates with Peruvian health authorities to develop local eye care infrastructures to reduce preventable blindness and visual impairment in Peru.
In 2017, Peruvian health authorities partnered with IM to organize a clinical team’s visit to the rural Peruvian region of Cañete.

METHODS

Purpose
To estimate the prevalence and causes of visual impairment and blindness in the region of Cañete, for use in programme planning.

Sample description
- 2101 patients were screened
- Median age: 52 (IQR 31 -65)
- Sex: 63% female

RESULTS

Refraction
- Low myopia OU: 11% of patients → ≤ 3.00 D > 0.00 D
- High myopia OU: 4% of patients → > 3.00 D
- Low hyperopia OU: 50% of patients → ≤ 2.00 D
- High hyperopia OU: 18% of patients → > 2.00 D OU
- Low astigmatism OU: 30% of patients → < 2.00 D
- High astigmatism OU: 24% of patients → ≥ 2.00 D
- Presbyopia: 81% → Prescribed add ≥ +1.00

Visual impairment and blindness in Cañete, Peru, at-a-glance

Proportion of bilateral ametropias (% n=2101)

Severity of refractive error by type of ametropia (% n=2101)

Glaucoma (% of patients)
- 2.8% Monocular ocular hypertension → IOP ≥ 24mmHg OD or OS
- 0.8% Binocular ocular hypertension → IOP ≥ 24mmHg OU
- 1.4% Unilateral elevated C/D ratio → C/D ratio ≥ 0.7 OD or OS
- 1.0% Bilateral elevated C/D ratio → C/D ratio ≥ 0.7 OU
- 0.1% Probable binocular glaucoma → C/D ≥ 0.7 and IOP ≥ 24mmHg OU

DISCUSSION

- Our data give a glimpse of the prevalence of visual impairment and ocular disease in Cañete, Peru
- Prevalence estimates for blindness and visual impairment are higher than national levels
- Prevalence estimates for uncorrected refractive errors are significant, especially for presbyopia and high astigmatism
- Cataracts, glaucoma and pterygium are confirmed as prevalent conditions in this population
- Appropriate interventions need to be planned to tackle the burden of these sight-threatening diseases

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Take home message

Prevalence estimates for blindness and visual impairment (12.7% visual impairment, 19.5% severe visual impairment) are higher than national levels

Prevalence estimates for uncorrected refractive errors are significant, especially for presbyopia (81%) and high astigmatism (24%)