

Inherited Eye Diseases in Africa: A Scoping Review and Strategy for an African Longitudinal Eye Study

Authors : Bawa Yusuf Muhammad, Musa Abubakar Kana, Aminatu Abdulrahman, Kerry Goetz

Abstract : Background: Inherited eye diseases are disorders that affect globally, 1 in 1000 people. The six main world populations have created databases containing information on eye genotypes. Aim: The aim of the scoping review was to mine and present the available information to date on the genetics of inherited eye diseases within the African continent. Method: Literature Search Strategy was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). PubMed and Google Scholar searched for articles on inherited eye diseases from inception to 20th June 2022. Both Original and review articles that report on inherited, genetic or developmental/congenital eye diseases within the African Continent were included in the research. Results: A total of 1162 citations were obtained, but only 37 articles were reviewed based on the inclusion and exclusion criteria. The highest output of publications on inherited eye diseases comes from South Africa and Tunisia (about 43%), followed by Morocco and Egypt (27%), then Sub-Saharan Africa and North Africa (13.50%), while the remaining articles (16.5%) originated from Nigeria, Ghana, Mauritania Cameroon, Zimbabwe and combined article between Zimbabwe and Cameroon. Glaucoma and inherited retinal disorders represent the most studied diseases, followed by Albinism and congenital cataracts, respectively. Conclusion: Despite the growing research from Tunisia, Morocco, Egypt and South Africa, Sub-Saharan Africa remains almost a virgin region to explore the genetics of eye diseases.

Keywords : inherited eye diseases, Africa, scoping review, longitudinal eye study

Conference Title : ICHG 2024 : International Conference on Human Genetics

Conference Location : Chicago, United States

Conference Dates : May 16-17, 2024