

Epidemiology

Chairperson: *H Vaughan*

The Role of Race in Scientific Research

A Anduze

All human beings belong to the “race” of *Homo sapiens*, genus and species. Further categorization of individuals, namely medical patients, into black and white races for purposes of scientific research is social construct (19th century) and not scientific.

With access to genomics and DNA testing for genotypes, gene location and function, classification based on “self-identification”, staff, doctor and scientist observation of skin color (phenotype) should not be used.

The “Black race”, includes and encompasses large amount of “White DNA” and the “White race” contains high levels of Black DNA. Glaucoma, diabetes and age-related macular degeneration should not be identified as more prevalent or less prevalent in individuals with variable amounts of pigmentation who are pigeon-holed into categories based on the North American 1/16th rule. Levels of blue, hazel and brown pigmentation in the iris as well as the number and intensity of melanosomes in the skin may determine an individual’s complexion but does not place him or her into a “separate race category”. The overlap is astounding. There are “Black” people with blue and green eyes, pale skin and straight hair, and “White” people with dark eyes and skin and curly hair. Classification by appearance is no longer valid. Rather, scientists should pay more attention to the roles of social status, economic means and psychological factors that elicit and set chronic stress levels that in turn are more appropriate in predicting susceptibilities and outcomes to disease than “skin pigmentation” or lack of.

The medical world is deeply set in 21st Century “Racism” in its treatment of patients as well as fellow scientists and physicians and must abandon these archaic, harmful and unscientific methods if it is to move forward in a positive direction.

Medical diseases affect individuals of different skin pigmentation levels according to geographic-socio-economic status which give rise to levels of stress, and not according to which social “race” they belong.

Epidemiology and Ocular Manifestations of Emerging Viral Zoonosis

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Objective: To highlight the ocular manifestations of emerging viral zoonosis and to establish the co-relation between the two through the analysis of Epidemiological evidence in an effort to sensitize ophthalmologists and health practitioners thus, enabling them to readily detect the effects of these emerging viral infections of the eye in the absence of supporting or confirming test results to prevent vision loss and allow appropriate treatments to be administered in a timely manner.

Method: Using several major databases, we conducted an extensive literature search to identify reports of eye disease related to: alkhurma haemorrhagic fever, arena viruses, chikungunya, crimean congo haemorrhagic fever, dengue fever, filoviruses, Japanese encephalitis, haemorrhagic fever with renal syndrome, kyasanur forest disease, rift valley fever, west nile fever, zika fever and zoonotic influenza viruses.

Results: The spectrum of ocular signs and symptoms associated with these infections range from minor reversible eye disease to permanent blindness. Many of these emerging viruses cause ocular inflammation and only supportive care may be offered due to the absence of specific treatments. Early diagnosis and treatment is integral in preventing negative visual outcomes from these infections. Note also that eye diseases associated with these emerging viral zoonotic infections may manifest concurrently with systematic illness or several months after.

Conclusions: An assessment of a possible exposure to any of the emerging viral illnesses when treating patients with a uveitis should now be included in all work-up of the patient.