



TRACHOMA AND VISUAL IMPAIRMENT IN THE ANANGU PITJANTJATJARA OF SOUTH AUSTRALIA

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Abstract

This thesis examines the epidemiology of eye disease in the Anangu Pitjantjatjara people of South Australia.

A literature review examines the methods for assessing visual disability. The major causes of blindness in the Australian Aboriginal population and the methodological problems associated with eye health surveys are discussed.

Past surveys of blindness in Australia are reviewed, demonstrating the imperfect knowledge of this area. Data relating to the Aboriginal population are presented and used in subsequent chapters for comparative purposes. The past causes of blindness in the Aboriginal population, with an emphasis on trachoma, are also reviewed.

The origin of trachoma in Australia is discussed, with the conclusion that although it may have been present in Australia for some time, the pattern of disease demonstrated by successive surveys indicates that it was not endemic in the north-west of South Australia prior to the coming of Europeans.

The design and conduct of a population-based prevalence survey is described. It examined the prevalence of trachoma, visual impairment and blindness in a sample of 1,514 individuals, aged 0-90 years of age, representing approximately 58% of the Aboriginal population in the Pitjantjatjara and Yalata lands.

Active inflammatory trachoma was found in 266/1514 (17.6%) of the sample, cicatricial trachoma in 382/1514 (25.2%) and blindness (Australian definition) in 22/1514 (1.5%) of the sample. The major causes of monocular and binocular blindness were found to be trachoma, cataracts and trauma. Women were found to have a increased prevalence of blindness and severe trachoma than males. The service role of the survey is also described.

The results are compared with those of the National Trachoma and Eye Health Program (N.T.E.H.P.) survey of 1976, which was performed in the same area. The comparison

includes a discussion of the methodological problems, and a comparison of grading schemes, the sample and source populations, and the results between the two surveys. A statistically significant decline since 1976 in the prevalence of binocular blindness, poor vision, inflammatory and cicatricial trachoma was found. These results were consistent across three sets of data.

An analysis was performed of intra-observer and inter-observer error in the survey. The use of duplicate examination sheets for this purpose is described, with the conclusion that there was only a small amount of variation between observations for trachoma grading and visual acuity testing. In another study, comparing the grading of trachoma with and without magnification, no differences between the two methods was demonstrated.

The ethical issues of research in Aboriginal communities is discussed with reference to the handling and ownership of data. Several practical problems which arose whilst performing the survey are documented and a review of the methodological issues that were apparent is undertaken. The main implications of the research findings are discussed, these include, the treatment and control of trachoma; the provision of services for women; the evaluation of inter-observer and intra-observer errors in surveys; the use of loupes for grading trachoma, and aspects of the survey that ensured its success in an Aboriginal community.