

Clinical Signs of River Blindness and the Efficacy of Ivermectin Therapy in Idogun, Ondo State-Nigeria

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Abstract : River blindness is a skin, and an eye disease caused by *Onchocerca volvulus* and vectored by a female hematophagous blackfly. The study aims to evaluate the distribution of the clinical signs of river blindness and the efficacy of ivermectin in the treatment of river blindness in Idogun. Observational studies in epidemiology that involve the use of a structured questionnaire to obtain useful epidemiological information from the respondents, physical assessment via palpation from head to ankle was used to assess clinical signs from the respondents and skin snip test was used to evaluate the prevalence of the disease. The efficacy of the drug was evaluated and expressed in percentages. One hundred and ninety-two (192) out of the 384 respondents examined, showed various signs of river blindness. However, it was only 108 (28.1%) respondents with the clinical signs that demonstrated *Onchocerca volvulus* microfilariae in their skin snips. The clinical signs observed among the respondents include skin depigmentation such as dermatitis, leopard skin, papules, pruritus and self-inflicted injury, while ocular symptoms include cataract, ocular lesion and partial blindness. Among these clinical signs, papules, and pruritus were the most dominant in the community. The prevalence of the clinical signs was observed to vary significantly among the age groups and gender ($P < 0.05$). The efficacy of the drug after 6 and 12 months of treatments shows that the drug is more effective at age groups 10-50 years than the age groups 51-90 years. Ivermectin is observed to be efficacious in the treatment of the disease. However, to achieve eradication of the disease, the drug may be administered at 0.15mg/kg twice a year.

Keywords : riverblindness, clinical signs, ivermectin, Idogun

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