

**Risk Factors For Onchocerciasis Among Patients Attending, Western Bahr El-Ghazal
State, Southern Sudan**

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ABSTRACT

Southern Sudan has the most highly endemic foci for blinding onchocerciasis in Sudan. The main endemic foci are located in Western Bahr El-Ghazal, Western Equatoria, and Northern Bahr El-Ghazal States. More than four million people are at risk of being infected with *Onchocerca volvulus* in Southern Sudan. The study was carried out in Western Bahr El-Ghazal state, to identify risk factors for acquiring onchocerciasis and also to determine knowledge, attitudes and perceptions among the study population.

Unmatched case-control study was carried out at onchocerciasis clinic in Wau teaching hospital, during the period August to November 2008. Cases were all confirmed onchocerciasis patients aged 18 years and above, while controls were patients without onchocerciasis attending medical or surgical clinic.

Study participants were 48 cases and 96 controls. For cases 83% were males and 17 % female, while for controls 55% were males and 45% were females. More cases were illiterate (69%) compared to 40% of controls. The patients presented with itching 94%, skin lesions 54%, nodules 25%, skin discoloration 17%, and impaired vision 13%.

Being a fisherman (OR =17.63, 95% CI: 7.12- 43.62), and living near a river or a stream (OR= 4.96, 95% CI: 2.02- 12.15), were the risk factors for acquiring onchocerciasis in Western Bahr el Ghazal state; while farming and shepherding were not risk factors (OR= 1.57, p-value 0.6; OR= 1, p-value 0.71 respectively).

The study revealed that, none of the participants knew about the cause. Also some of the study population did not know about: mode of transmission (15% of cases and 35% of controls), treatment usefulness (4% of cases and 21% of controls), and how to avoid getting onchocerciasis

(10.4% of cases and 20% of controls). Cases were found to have better knowledge about the disease (transmission, usefulness of treatment and how to avoid infection) than controls (OR= 3.51, p-value 0.0046; OR= 6.44, p-value 0.0062; OR= 3.70, p-value 0.0006 respectively).

There were false beliefs among the study population that onchocerciasis can be treated by witch doctors (10.4% of cases and 17% of controls).

Based on the findings of this study priority should be given in health education and treatment on onchocerciasis using the current project (Community Directed Treatment with Ivermectin) to fishermen and those living near rivers/ streams.