

The Management of Female Genital Schistosomiasis in Tanzania: Challenges and Call for Action

Vivian Mushi

Department of Parasitology and Medical Entomology, School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences, P.O. Box 65011, Dar es Salaam, Tanzania.

Mobile:

+255653942973

E mail:

vmushi31@gmail.com

Key words:

Female Genital

Schistosomiasis;

Urogenital

Schistosomiasis;

Challenges;

Recommendations;

Tanzania

ABSTRACT

Female Genital Schistosomiasis (FGS) is among the neglected gynecological manifestation of urogenital schistosomiasis in Tanzania. Little is known about the challenges in the diagnosis, treatment, and prevention of FGS in Tanzania. The challenges could potentially threaten the successful control of the FGS. Therefore, the letter explains

the challenges in the FGS management and recommends the appropriate measures that could be taken to initiate the fight against the FGS in Tanzania.

INTRODUCTION

FGS is the most neglected gynecological condition in sub-Saharan Africa, including Tanzania [1]. Approximately 56 million girls and women are affected by FGS in sub-Saharan Africa [2]. FGS is due to untreated *Schistosoma haematobium* (*S. haematobium*) infection acquired through contact with cercaria-contaminated water bodies used by the community (women and girls) for their daily chores and livelihoods [3]. FGS is a major burden to women and girls due to reproductive organ damage and the complications such as infertility, ectopic pregnancy, miscarriage, social stigma, premature birth, low birth weight, and in some cases maternal death [3]. FGS is associated with the increased risk of HIV susceptibility and transmission. The odds of acquiring HIV in women and girls with FGS are three times higher compared to uninfected women and girls [4]. This is because FGS causes lesions and inflammation, thus, the easy entry of the viruses into the body [4].

Tanzania is among the *S. haematobium* endemic countries, with persistent transmission documented in

some regions across the country [5,6]. With the ongoing *S. haematobium* transmission in the country, it's an alert for the high possibility of women and girls developing or having FGS. The challenges in the management of FGS in Tanzania include; the unknown burden of FGS on women and girls across the country. Unfortunately, in the country, there is limited data on the FGS. Hence, difficult to plan effective strategies for disease management. Another challenge is the diagnosis of FGS, the diagnosis of FGS requires visual inspection by colposcopy. However, the colposcopies are not available in many health centers where most Tanzanian women and girls attend. This is due to the high cost of buying the colposcopies as it ranges from 2000 to 8000 USD. Also, there is a challenge of the limited capacity of the healthcare workers to diagnose the FGS, as it has been reported to be confused with sexually transmitted diseases [3]. Furthermore, there is little awareness of FGS in the *S. haematobium* endemic communities. The poor awareness could affect the health seeking behavior among the infected women and girls. The exclusion of women and girls from

preventive chemotherapy control of urogenital schistosomiasis is another challenge in the management of FGS. Currently, preventive chemotherapy targets only school-aged children [8]. Hence, other populations at risk are left out. Exposed women and girls to cercaria-infested water while not being covered in preventive chemotherapy programmes increases the risk of *S. haematobium* eggs deposition in the genital-urinary system. This challenge is not from Tanzania only but in most of the urogenital schistosomiasis endemic countries.

With the ongoing challenges in the management of FGS, I wish to recommend the following measures to the Neglected Tropical Diseases Control Programme through the Ministry of Health to initiate the control of FGS. These are to:

- i. Establish the burden of the FGS and re-mapping of all urogenital schistosomiasis endemic districts in the country. Knowing the current burden of the FGS and re-mapping urogenital schistosomiasis endemic districts will indicate the potential threat areas where the FGS cases could arise. Hence, the appropriate allocation of the resources for the management (diagnosis and treatment) of both FGS and urogenital schistosomiasis.
- ii. Mobilize resources for purchasing diagnostic equipment (colposcopies) and distribute the diagnostic equipment to all health centers in the FGS and urogenital schistosomiasis endemic districts. It will ensure the availability of diagnostic equipment in endemic areas.
- iii. Train the healthcare workers on the appropriate diagnosis and management of the FGS. Training will make healthcare workers knowledgeable and acquire the required skills for FGS management. The availability of diagnostic equipment is not enough. Hence the need for competency in the use of the equipment.
- iv. Raise the awareness of the FGS and urogenital schistosomiasis among women and girls. It can be done by providing health education in schools, health centers, and the community. Health education should focus on all aspects of FGS and urogenital schistosomiasis from causative, transmission, signs/symptoms, treatment, and prevention. For the schools, health education can be provided through the formation of health clubs, for the health centers through reproductive health clinics, and in the community through community meetings and gatherings.
- v. Provide praziquantel preventive chemotherapy to all communities at risk of acquiring urogenital schistosomiasis. This will prevent the manifestation of FGS in women and girls. World Health Organization's new guideline for the control and elimination of human schistosomiasis recommends the provision of praziquantel to the community with a prevalence of >10% once a year at coverage of $\geq 75\%$.
- vi. Integrate FGS and urogenital schistosomiasis screening services with adolescent sexual and reproductive health clinics, gynecological screening services, and care and treatment clinic services. This will help to reach more women and girls in endemic districts for early diagnosis and treatment of FGS to avoid the morbidity associated with the disease.

In conclusion, now more than ever, it's an opportune time to invest and implement FGS control measures in Tanzania. The recommended control measures will control both FGS and urogenital schistosomiasis. *Let us all remember that FGS is preventable.*

REFERENCES

1. Hotez PJ, Harrison W, Fenwick A, Bustinduy AL, Ducker C, Sabina Mbabazi P et al. Female genital schistosomiasis and HIV/AIDS: Reversing the neglect of girls and women. *PLoS Negl Trop Dis*. 2019 Apr 4;13(4):e0007025. doi: 10.1371/journal.pntd.0007025.
2. UNAIDS. No more neglect female genital schistosomiasis and HIV. *Integr Sex Reprod Heal Interv Improv women's lives*. 2019;(UNAIDS/JC2979):1–44.
3. Mazigo HD, Samson A, Lambert VJ, Kosia AL, Ngoma DD, Murphy R, Matungwa DJ. "We know about schistosomiasis but we know nothing about FGS": A qualitative assessment of knowledge gaps about female genital schistosomiasis among communities living in Schistosoma haematobium endemic districts of Zanzibar and Northwestern Tanzania. *PLoS neglected tropical diseases*, 2021; 15(9), e0009789. <https://doi.org/10.1371/journal.pntd.0009789>.

4. SCI-Foundation. Female Genital Schistosomiasis (FGS). Available from: <https://schistosomiasiscontrolinitiative.org/ntds-female-genital-schistosomiasis> (Accessed 18 Apr 2022)
5. Mazigo HD, Nuwaha F, Kinung'hi SM, Morona D, Pinot de Moira A, Wilson S et al. Epidemiology and control of human schistosomiasis in Tanzania. *Parasit Vectors*. 2012 Nov 28;5:274. doi: 10.1186/1756-3305-5-274.
6. Mushi V, Zacharia A, Shao M, Mubi M, Tarimo D. Persistence of *Schistosoma haematobium* transmission among school children and its implication for the control of urogenital schistosomiasis in Lindi, Tanzania. *PLoS One*. 2022 Feb 15;17(2):e0263929. doi: 10.1371/journal.pone.0263929.
7. NTDCP. Neglected Tropical Disease Control Program in Tanzania. Report of 2016 on Schistosomiasis control program among school age children. 2016. 23–25 p.