

Summary brief

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Surgical reduction of Nodules in patients with elephantiasis has positive Impact on Quality of Life

Podoconiosis is a disease that causes swelling of the lower legs and tissue lumps (nodules) of the feet.

¹Reference:

Enbiale W, Verdonck K, Gebeyehu M, van Griensven J, de Vries HJC (2021) Surgical debulking of podoconiosis nodules and its impact on quality of life in Ethiopia. *PLoS Negl Trop Dis* 15(1): e0009053.

<https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0009053>

Key Messages

1. The commonest cause of elephantiasis in Ethiopia is podoconiosis which causes tissue lumps (nodules) in the foot or leg.
2. It affects approximately 1 in every ten people in Ethiopia and is associated with reduced quality of life due to social stigma
3. Surgical reduction of nodules positively impacts podoconiosis patients' quality of life and allows them to resume wearing shoes, but this treatment option is underutilized.
4. Podoconiosis case management needs to include nodule surgery as the preferred treatment option for those patients with nodules.
5. The National elephantiasis morbidity management and disability prevention (MMDP) guideline needs revision to include surgical reduction of nodules.

What is the problem and why is it important?

1. Podoconiosis is a disease that causes swelling and nodules of the lower legs and feet. Conventional treatment included in the national MMDP guideline include care for traumatic abrasions, use of moisturizer, daily exercise, leg elevation, shoe wearing and compression with short stretched elastic bandaging.
2. The diseases in common in one third of the districts in the country; with 1 in every 10 -people affected.
3. Podoconiosis is associated with episodes of repeated bacterial infections physical disability; stigma and loss of economic productivity.
4. Podoconiosis with nodules respond poorly to the conventional treatment with increased risk of recurrent infection and difficulties with wearing shoes and mobility.
5. Surgical reduction of nodules is not considered by healthcare workers as treatment option for podoconiosis because of limited evidence on safety and effectiveness of the procedure.



Pre-Surgical reduction (Fig 3A and 3B); post-Surgical reduction (Fig 3C and 3D)

Podocniosis case management needs to include nodule surgery as the preferred treatment option for those patients with nodules.

Surgical reduction of Nodules positively impact podocniosis patients' quality of life and allow them to be fitted into a shoe.

How did we measure it? (up to 150 words)

1. Data was extracted from the files of 21 patients who underwent surgical reduction of the nodules in Felege Hiwot and Tibebe Ghion Specialized Hospitals in Bahir Dar, between January 2015 and December 2019.
2. The data was analyzed, for time to wound healing after surgery, change in number of acute bacterial infection occurrence, and change in quality of life was measured.
3. Descriptive statistics, Dermatology Quality of Live Index and Wilcoxon signed rank test were used for data analysis.

What did we find?

1. Surgical reduction is successful in podocniosis with acceptable healing rates and an encouraging lack of major complications.
2. There was significant reduction of acute bacterial infection occurrence after surgery, as compared to before the surgery.
3. The quality of life was improved significantly six months after surgery than before surgery in terms of personal relationships, work and schooling, symptoms, and daily activities.

Implications

1. Surgical reduction of nodules in management of podocniosis is safe and effective
2. Removal of the nodules in these patients could allow them to make better use of the conventional therapy of foot hygiene including shoe wearing.
3. This surgical intervention improved the patients' quality of life: social relationships and resumption of work and school
4. Healthcare workers should consider surgical reduction of nodules for case management of podocniosis
5. The National elephantiasis morbidity management and disability prevention (MMDP) guideline needs revision to include surgical reduction of nodules.