Our Resolve: Freedom from Filariasis

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Lympathic Filariasis

What is lymphatic filariasis (LF)?

- Lymphatic filariasis (LF) is a parasitic disease, commonly known as elephantiasis.
- It is caused by thread like worms known as filarial parasite.
- The adult worms (male and female) settle in lymph nodes and the female worm gives birth to millions of young ones known as microfilariae (mf).

Microfilaria in the blood of man

- Generally no symptoms are seen initially, but the lymphatic system is damaged.
- With no symptoms initially, the persons with mf are not recognized and they continue to transmit the parasite to the community.
The persons infected with the parasite may experience frequent acute attacks of adenolymphangitis when they may have symptoms of fever, pain and redness in the affected body parts.

After 6 to 8 years of infection, clinical symptoms such as swollen legs or enlarged lymph nodes/lymph vessels or hydrocele may appear.

These chronic manifestations become irreversible as the lymphatic system has already been damaged.

How is LF transmitted?

Filarial parasite species in India lives only in man. The adult worm produces microfilaria which circulates in the peripheral blood system of the infected people. When the mosquito feeds on the infected person, it ingests the microfilaria.

The ingested microfilaria grows and within 12 days it reaches a stage when it can infect another human being.

When the mosquito with infective stage larva bites another person, the parasite enters and reaches the lymphatic system.

How to prevent infection?

Administration of single dose of antifilarial drugs to the entire community (mass drug administration), yearly once for 5-6 years.

Diethylcarbamazine (DEC) and albendazole are the drugs used for mass drug administration.

Protection from mosquito bites

Why should every one take DEC and albendazole tablets during Mass Drug Administration (MDA)?

People living in filaria endemic areas, who look healthy, may be carrying mf in their blood without any recognizable symptoms at the initial stage.

Finding the infected persons at this stage and giving them alone treatment is tedious.

Both DEC and albendazole are safe and even non-infected can take the drugs.

DEC kills mf and albendazole normally clears intestinal worms which is an added benefit. When both the drugs are given together, it has effect on adult worm and therefore the parasites will be destroyed preventing the infected person from developing disease.

When every individual in the community takes drugs under MDA, microfilaria will be cleared and not present in the blood for the mosquitoes to transmit.

MDA repeated annually over 5-6 years may interrupt transmission. This eventually leading to future generation being free of this infection.

Who should take the drugs?

Everybody in the community, except pregnant women, children below two years of age and persons who are very sick from other illness.

When should people take DEC tablets?

DEC tablets should be taken once in a year on the identified day of MDA (National Filaria Day).

The tablets should be taken after food. If the tablets are taken on
empty stomach, it may cause stomach discomfort.

How many tablets should one consume?

- The dose for different age groups is indicated below:

<table>
<thead>
<tr>
<th>Age (in years)</th>
<th>DEC Dose</th>
<th>No of Tablets (100 mg)</th>
<th>Albendazole (400 mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>2-5</td>
<td>100 mg</td>
<td>1 tablet</td>
<td>1 tablet</td>
</tr>
<tr>
<td>6-14</td>
<td>200 mg</td>
<td>2 tablets</td>
<td>1 tablet</td>
</tr>
<tr>
<td>15 &amp; above</td>
<td>300 mg</td>
<td>3 tablets</td>
<td>1 tablet</td>
</tr>
</tbody>
</table>

Are there any side effects of drugs?

- DEC and albendazole are safe drugs, which are in use for the last 50 years around the world.
- People, who look healthy but have parasite in their blood, may experience some side (therapeutic) effects due to the killing of parasites following drug consumption.
- One or combination of the following side effects may be experienced by a small proportion of population especially microfilaria carriers:
  - Fever
  - Headache
  - Body ache
  - Vomiting
  - Dizziness
  - Rash and itching occasionally
- These side effects are self limiting, usually disappear or subside within a day without any medication.

What should Drug Distributors do?

The ultimate goal of the drug distributor is to administer drugs to the assigned population. Therefore the drug distributor should list who should get the drugs and then mobilize their participation. Training will be provided to all the drug distributors by the Medical Officer of the PHC and VHN on MDA 15 days prior to the day of MDA.

Pre MDA activities:

Enumeration and motivation of the community by making at least two visits.

First visit: (Household enumeration)

- Visit every house in your assigned area with in 15 days prior to the day of MDA.
- Identify yourself as an active member of the community and display your Identity card.
- Enquire about the details of the household and record:
  - Village name
  - Street name
  - House number
  - Name, age and gender of the every member in the household
- Inform the family members about the MDA programme and clarify their doubts.

Second visit: (Interpersonal contact)

- Make house to house visit
- Meet all the available members
- Explain to them:
  - The problem due to LF in the area and socio-economic impact.
Methods of prevention of LF
Importance of MDA
Possible side effects
Health and economic benefit of MDA
Date and time of drug distribution
Ensure that all family members are available at the time of MDA

MDA activities:

Checklist of items to be carried:
- Identity card
- Sufficient number of tablets including paracetamol

For a population of 250
- Approximately 700 tablets of DEC (100 mg)
- 275 tablets of albendazole
- IEC materials

Drug administration:
- Visit the house at the agreed time
- Identify all the eligible individuals for administering drugs
- Approach every individual in the household
- Select the correct dose of DEC based on the age of the person
- Co-administer DEC with albendazole
- Ensure that the individual is consuming the drugs in your presence (supervised administration)
- Record the absentees and their time of availability
- Advise to approach the Sub-centre/PHC if any inconvenience is faced

Mopping-up:
- Make daily visits to your assigned area for two days following MDA to cover the absentees
- If any case with side effects are come across, provide them with symptomatic treatment
- If any case requires hospital admission, report to the VHN/rapid response team
- Consolidate your record on the number of people covered daily

Data consolidation and reporting:
- Consolidate the data on:
  - The total population
  - Eligible population
  - Number of people administered with drugs
  - Number of people reported with side effects
  - Type of side effects encountered
  - No. of people required hospitalization
  - Number of tablets received and distributed
- Return the family register along with drugs in balance to the VHN
Tips for improving coverage & drug compliance during MDA

- Ensure that messages on the date of MDA are displayed through posters/banners in your area and premises of public places.
- The local community leaders should be informed and involved in MDA.
- Explain to people about filariasis and how it spread and clear their doubts.
- Inform people about the disabilities caused by LF and its impact on economic productivity and income.
- Educate people about its risk and social stigma especially in case of girls/women.
- Inform people about the importance of prevention through consuming DEC and albendazole tablets on the day of MDA.
- Inform people that they may not know that they are infected from this disease and if they do not take DEC tablets, the manifestations may appear later in the form of swelling of legs/ enlargement of lymph nodes/lymph vessels or hydrocele.
- Explain that once swelling appears, it is difficult or impossible to reverse. It may remain as a permanent disability causing social stigma, hampering the daily activities, quality of life and also be a financial burden.
- If the whole community takes DEC tablets once a year for 5-6 years, the microfilariae in the infected persons will be killed and the disease progression will be halted. The spread of filariasis will be stopped as mosquitoes cannot pick up the infection and we can make the next generation free from filariasis.
- Explain also that unless everybody takes the drug, the disease will continue to spread.
- Killing of microfilariae by the drugs may cause some the side effects among a small proportion of people
- Tablets should not be taken on empty stomach.

- Also inform that the mass drug administration with DEC and albendazole alone will not cure the chronic complications such as lymphoedema and hydrocele.
- If there are patients in the family, they should be advised to approach the health care facilities in your locality.
- Hydrocele can be surgically operated in the Government Hospitals free of charge. Enlist the hydrocele cases and motivate them to avail the facilities.
- Identify and involve individuals in the village who will campaign for MDA. Provide them with adequate IEC materials.

OUR VISION : FUTURE GENERATION FREE FROM FILARIASIS

HELP TO KEEP THIS SMILE ALIVE