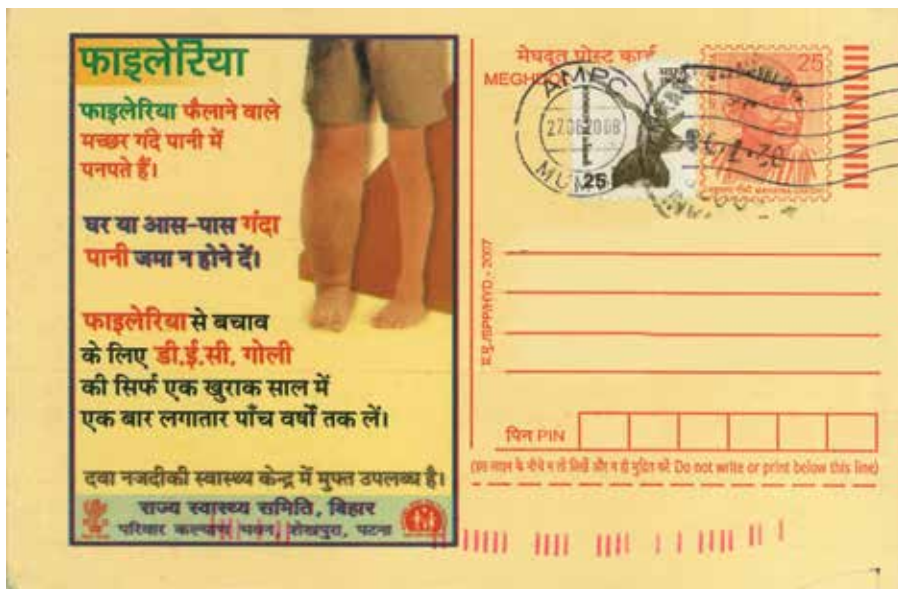


MEDICAL PHILATELY

Eradicating Filariasis

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Filaria education message on the postcard by Bihar state health department, Patna

W. *Bancrofti* is widely distributed in the tropics, but largest numbers of cases of lymphatic filariasis (LF) occur in India. The current world estimate by WHO reveals that 120 million people in 83 countries of the world are infected with lymphatic filarial parasites, and that more than 1.1 billion (20% of the world population) are at risk of acquiring infection. Over 40 million people are severely disfigured and disabled by filariasis and 76 million apparently normal but having hidden internal damage to lymphatic and renal systems have microfilarimias. As for India 650 million people across at least 250 districts and 29 states in the country are at risk of filariasis.

Recently Bill Gates as guest Editor of Times of India (TOI 17/11/17) has highlighted the topic of filariasis in detail and is pretty certain, India will miss target date of stamping out elephantiasis (LF) that it was hoping to eliminate by 2020. The national health policy had aimed at eliminate filariasis by 2015. The deadline was extended to 2017 and again to 2020". He has discussed the problems and difficulties at the field level and has also suggested remedial measures to

the national health policy.

The endemic areas for filariasis are places near sea coast and banks of large rivers. Man is the only definitive host. The worms are ovoviviparous whitish and translucent; female being larger than male. They may remain coiled together in abdominal and inguinal lymphatics and in testicular tissue etc. living for a long period; probably 10-15 years. Major vector in India is *Culex fatigans*. Gravid female releases fresh generation embryos (microfilaria) encased in its elongated sheath 250-300 microns in length. Microfilaria shows a nocturnal periodicity in circulation, correlating with the habit of vector mosquito. Once they reach mosquito stomach, they undergo infective larval development and reach proboscis during its third phase. This larva enters host through the puncture wound or penetrates the skin by themselves at the site of the bite.

Characteristic manifestations are due to obstruction of lymph vessels. Elephantiasis is a feature unique to man



Campaign against vector transmissible diseases Congo (Brazzaville), and 1981

apparently caused by erect posture and consequent lymphatic hydrodynamic factors. Tropical eosinophilia is considered an atypical manifestation of filariasis. Diagnosis is done by direct detection of microfilaria in blood and other fluids, eosinophilia, and several serological and immune-enzyme tests which have not been very practical.

Measures in prevention and control of filariasis are eradication of vector mosquitoes, and detection & treatment of carriers. Global strategy is by mass drug administration (MDA) in endemic districts ensuring coverage of over 60% populations by administration of two drugs: Diethylcarbamazine citrate (DEC) along with Albendazole once a year for five years. A transmission assessment survey is conducted after the period to see if the district qualifies for stoppage of drug. Recently out of 256 districts many of the 96 districts failed treatment assessment.

The two drug regimen reduces the disease by 60-80% hence requires five rounds. The new drug regimen is expected to clear infection faster-requiring just two rounds. It consists of three drugs: DEC+ albendazole+ Ivermectin. Ivermectin is expensive and dosage dependent which could mean adding 2-4 tablets depending upon body weight. This could also cause community non compliance.