

THE DOMESTIC FLY—A CARRIER OF LEPROSY

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It is generally observed that the domestic fly, with its promiscuous habits, is fond of alighting on open wounds. They feed on the secretions from these wounds and carry millions of organisms on their feet and mouth parts, and drop their faeces wherever they alight. It has always been in my mind to dissect out the intestines of these flies and examine their contents to find out whether they ingest lepra bacillus from open wounds of highly leprous cases or not. Accordingly the following experiments were carried out in our clinical laboratory.

Flies were allowed to alight on open wounds of a highly leprous case. They were then caught and scrupulously cleaned first in weak lysol lotion then in plain water. After this preliminary clean up, they were put in a wide glass test tube, the mouth of which was plugged lightly with a ball of cotton wool to prevent them from flying away.

Experiment No. 1. A couple of flies were taken from the lot before they were put in the test tube, their head and mouth parts

were pressed over clean slides and smears made, slides were then stained by Ziel-Nelsen method and examined under microscope.

Observation. Numerous acid fast bacilli were seen in every field.

Experiment No. 2. About six hours after, a couple of flies were taken out from the test tube and each one was fixed on a card board with a pin, stomach and intestines were dissected out, smears made from the contents on glass slides were stained and examined as in Experiment No. 1.

Observation. Numerous acid fast bacilli were found in every field.

Experiment No. 3. Similar experiment was done after 24 hours.

Observation. Same as in Experiment No. 1 and 2.

Experiment No. 4. Smears made from the faeces deposited by flies on the sides of the test tube were stained and examined.

Observation. Numerous acid fast bacilli were found in every field.

Experiment No. 5. Smears made from the contents of digestive system of flies caught in the consulting room, which is a separate block but close to the hospital wards, were stained and examined.

Observation. A few acid fast bacilli were found.

Experiment No. 6. Smears made from the contents of the digestive system of flies caught in the Resident Medical Officers Bungalow situated about half a furlong away from the Leper Home, were also stained and examined as above.

Observation. No acid fast bacilli were found in any field.

COMMENTS

1. The house fly ingests lepra bacilli and passes them on in the faecal deposits.
2. It is quite possible that the domestic fly is a carrier of leprosy.
3. How long lepra bacilli can remain in the digestive tract of a domestic fly needs investigation.