

CASE REPORT

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Centipede Inflicted Postmortem Injury

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ABSTRACT: We here report the first case of postmortem injury caused by a centipede. An old man was found dead in his bedroom. The death was estimated to be due to intracranial hemorrhage and to have occurred two days before the police inspection. A centipede about 12 cm long emerged from a subcutaneous cavity on the victim's forearm. Obviously, the centipede had dug the cavity on the intact skin. A police inspector was bitten by the centipede, so he stepped on the centipede on the floor. The exudate from the insect was identified to be derived from the victim's blood.

KEYWORDS: forensic science, forensic entomology, centipede, postmortem injury

Forensic entomology is a field that includes the study of insects that injure dead bodies. Most reports in forensic entomology have focused on the estimation of the time of death, on the basis of the size or growth stage of maggots or other carrion insects (1–3). Insects such as flies, cockroaches, ants, and beetles are known to inflict postmortem injuries (4).

Although centipedes are also described to injure dead bodies after putrefaction (5), there is no such documented report. Here, we present a rare case of a relatively fresh corpse with a postmortem injury inflicted by a centipede.

Case History

A 62-year-old man, who lived alone, was found dead in the bedroom in the spring (Fig. 1). The room temperature was 22°C when he was found. He was 165 cm tall and thin. At the police investigation, the postmortem interval was estimated to be approximately two days on the basis of postmortem changes. There was no sign of putrefaction except for the slightly greenish color on the lower abdomen.

When a police inspector was taking the clothes off, a centipede about 12 cm long and 1 cm wide (Fig. 2) appeared from a subcutaneous cavity with a round orifice (about 1 cm in diameter with relatively smooth edge) on the left forearm of the deceased (Fig. 3). Because the centipede bit the hand of a policeman, he stepped on the

centipede on the floor. He consulted a doctor and was treated without any sequelae. The bloody exudate from the crushed centipede was examined at the Scientific Investigation Research Laboratory. As a result, this exudate turned out to be derived from the human blood, and the ABO-blood type was identical with that of the deceased.

The skin of the deceased was apparently intact except for the orifice of the cavity. Police investigators found no evidence of assault. Because the man was estimated to have died from intracranial bleeding on the basis of the bloody cerebrospinal fluid, an autopsy was not performed.

Discussion

It has been described that centipedes usually eat live insects such as spiders and ticks, and sometimes the carrion of insects and animals (5). Most carrion insects colonize in and around the facial cavity and the postmortem orifices formed by antemortem trauma or postmortem decomposition (6). By contrast, as shown for the first time in this report, the centipede penetrated the skin of the corpse with apparent antemortem integrity and no sign of putrefaction. The cylinder-like subcutaneous cavity was determined to have been formed by the postmortem invasion of the centipede because there was neither a vital reaction nor any evidence of postmortem disruption (Fig. 3).

In addition to the estimation of postmortem intervals, the examination of carrion insects is useful for other purposes in forensic practices. When blood, urine, or tissue samples are not available due to



FIG. 1—The bedroom where the corpse (to the right of the picture) was found.

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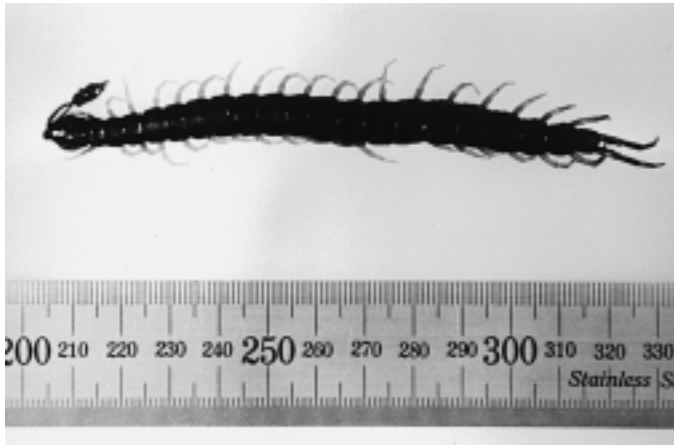


FIG. 2—The centipede found at the scene.

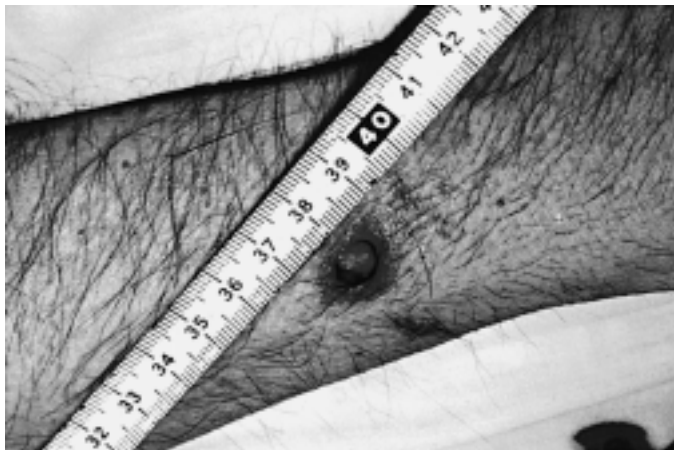


FIG. 3—The orifice of the subcutaneous cavity in the left forearm of the deceased.

postmortem changes, extracts of insect larvae in and around the deceased have been shown to be useful for the identification of the drugs that the victim may have used. For example, malathion poisoning was confirmed by the analysis of blowfly larvae sampled from a decomposing body (7). Additionally, cocaine and benzoylecgonine were identified in the extract from the fly larvae found on a dead body (8). This report has extended the application of blood typing to the extract from centipedes in addition to other carrion insects.

Unlike most other carrion insects, centipedes are aggressive and poisonous. As shown in this report, a policeman was injured by the centipede during the inspection. Although the poison is not lethal for humans, this case provides a lesson that a centipede in and around the deceased can damage the body, or may even cause a blood-borne infection in any individual who is bitten at the scene or during subsequent autopsy.

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