

Mites and Insects as Indicators of Physical Abuse

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Insects and mites are of value to criminal investigation (Goff, 1993; 2003 & Rasmy, 2005 and 2007). In further studies, Gennard (2007) and Rasmy (2008) have reported that insects and mites are also of value as forensic indicators in case of neglect or abuse. Some species of these organisms may invade living tissue of humans (Gupta and Setia, 2004). For example, the adult flies of the greenbottle, *Lucilia sericata* Meigen, the housefly, *Musca domestica* Linnaeus and the bluebottle, *Phormia regina* Meigen are attracted to odours resulting from the urine or faecal contamination of babies or incontinent old people who have not been assisted in maintaining their bodily hygiene. These flies may lay their eggs on skin or clothes, then the resulted maggots feed on flesh or natural openings of the body causing wounds or ulcers which may be infected by bacteria.

On the other hand, the mite *Demodex folliculorum* (Simon) lives in the hair follicles of man in various parts of the body, while *D. brevis* Akbulatova inhabits the sebaceous glands at the junction of nose and cheek. Although any pathogenic role for *Demodex* in humans is still uncertain, it does appear that it can be a cause of blepharitis from synergetic bacterial infection (English, 1969 and Nutting, 1991).

The scab mite *Sarcoptes scabiei* L. is widely regarded infesting a wide range of hosts (Lee, 1975). It is variously able to cause itching, rashes in humans. The sarcoptids may cause burrows in the skin of the host. If bacteria cooperate with the mites the condition will become inflamed, pus-producing, and smelly. Moreover, these mites are also of interest since they may transmit viruses or bacteria between hosts. Many investigators believe, but not proof as yet, that bacteria of leprosy can be carried by demodectic mites (Nutting, 1973).

It is worth noting that scab mites tend to be attracted to the vagrant persons and old people who have not been assisted in maintaining their bodily hygiene and are not able to avoid the infection with these mites themselves.

Thus, insects and mites can provide evidence about the existence of physical abuse.

However, we obviously need further investigation to advance our knowledge of forensic entomology and acarology to become more accurate and widely accepted as forensic tools.

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