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VIRULENCE OF *RICKETTSIA PROWAZEKI* FOR HEAD LICE *

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Introduction

Lice that infest man colonize in three separate areas: the clothes, the hair of the head, and the hair in the pubic area. The separateness of these colonizations is sufficiently distinct for human lice to be categorized as body (or clothes) lice, head lice, and crab (or pubic) lice.

The crab louse (*Pediculis pubis*) is markedly different anatomically and physiologically from both head and body lice; we will address ourselves to the subject of virulence of *R. prowazeki* for the crab louse in a subsequent paper. Head and body lice are considered by some entomologists to belong to two distinct species: *Pediculis humanus corporis* and *capitis*. However, the majority opinion seems to be that head and body lice are at opposite ends of a single species.[1] Regardless of taxonomic differences, it is clear that, geographically on man, colonies of head lice rarely migrate to the clothes and colonies of body (clothes) lice rarely migrate to the hair on the head; furthermore, almost without exception, eggs of head lice are laid on hair and eggs of body (clothes) lice are laid on clothes.

During this century, a further distinction between body and head lice has become clear-cut in the developed nations. Since 1900, infestation with body lice has markedly decreased in the United States, Western Europe, and in other nations with high standards of living. There remains, however, a wide prevalence of head lice, particularly on school children, in many of these countries. Sporadically, head lice reach epidemic proportions, such as in England in 1972, when more than 150,000 school children were reported infested. In Boston during the winter of 1973–74, an epidemic of head lice plagued the schools. Two school nurses who provided us with combed-out head lice informed us that they had examined the clothes and heads of hundreds of children with head lice. They insisted that they had not found any lice living in the clothes.

This greater prevalence of head lice over body lice is now also becoming noticeable in traditional endemic typhus areas of Eastern and Southeastern Europe, such as Bosnia, Yugoslavia.[2] Head lice are therefore still prevalent in the world and are becoming more available to be the sole transmitters of typhus, if they do transmit it.

Transmission of typhus from man to man by the human body louse (*P.*

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