

Focal infection may be due to one or more of several organisms, but is generally due to streptococcus, occasionally to staphylococcus, and these two and other micro-organisms may be present in the same focus. Occasionally pneumococcus, micrococcus catarrhalis, influenzal bacillus, diphtheria or pseudo-diphtheria bacillus, gonococcus, the tubercle bacillus or saprophytic organisms may be in association.

It is important to remember that in most instances the streptococcus viridans or hemolyticus is the infecting organism. This coccus is present in many mouths apparently normal and may be acquired by carriers or by food, milk or through the air. The origin of the streptococcus is unknown. From the standpoint of virulency, specificity and trophism, streptococci may be arranged in the following order. (1) streptococcus hemolyticus, (2) streptococcus rheumaticus, (3) streptococcus viridans, (4) streptococcus mucosus.

The conscientious, painstaking work of Rosenow has clearly proven that the streptococcus, by cultural methods or by passing through laboratory animals, may be transmuted into any one of these varieties or into the pneumococcus. He has also proven that these organisms possess specificity for certain tissues of the body, and that variations in the transmutability, pathogenicity and specificity produced in the laboratory *also take place in the human body*. Micro-organisms obtained from a focus of infection causing cholecystitis or from the diseased gall-bladder when injected into animals, produce cholecystitis in a large percentage of cases, and this is also true of appendicitis, arthritis, gastric ulcer and other diseases. These experiments prove that the primary focus produces the disease and that the organism possesses selectivity.

Secondary infections usually take place by the hematogenous or lymphatic route, and micro-organisms have been observed in secondary foci as emboli. The septic focus produces not only micro-organisms but also toxins, which play an independent role in causing chemie trauma of various tissues of the body, and evidence exists tending to confirm the belief that these toxic substances also possess selectivity, or that certain tissues select these toxic bodies. The rapidity of the disappearance of mental and physical weakness and severe pain in certain nerves, when the focus of infection has been removed, is best explained by assuming that they were due to toxemia. The varying degrees of virulency of the streptococcus depend upon the presence of varying amounts of oxygen, the less the oxygen the greater the virulency, and, to a certain extent, the food supply is also a factor. Many focal infections remain local, and this observation has prevented many thoughtful physicians from believing that focal infection causes constitutional diseases. An abundance of clinical and bacteriological evidence, supple-