

He also quotes a case reported by Pfeiffer. A man of good family history, and in good health, was wounded in the thumb of the left hand when performing autopsies on tuberculous cattle, the point of a knife entering the articulation between the first and second phalanges. The wound healed without suppuration, but after six months a cutaneous tubercle formed about the scar, and the joint was attacked. The lungs became involved, and the man died eighteen months after the accident. At the autopsy the local lesion was found filled with a caseous mass extremely rich in bacilli.

These cases indicate at least the possibility of direct infection by bovine bacilli. They may also be regarded as an illustration of what has been observed in systemic infection by many forms of micro-organisms, that the amount of resistance offered to infection by an animal varies according to the special tissue attacked, while the possibility of infection is increased by the presence of an already existing lesion.

Shortly after Koch had demonstrated the presence in the tissues of the bacilli, other investigators found the same bacilli in the milk of cattle suffering from the disease. Nocard, Bang, Rabinowitsch, Petri, Ernst, and many others working in this field for many years, have established beyond doubt that true tubercle bacilli are found in considerable numbers in the milk of cows suffering from advanced tuberculosis or tubercular mastitis. They are also found occasionally in the milk of cows giving only slight clinical evidence of tuberculosis, but distinctly reacting to tuberculin. Butter also, frequently contains the tubercle bacilli, but meat comparatively seldom.

Experimental investigations following in the wake of these bacteriological researches proved undoubtedly, as had been stated before, that milk in which bacilli existed in sufficient numbers, was assuredly pathogenic for young animals, and led to general tubercular infection. It is to be noted, however, that the experiments of Adami and Martin at Outremont, near Montreal, corroborating those of observers in other countries, show that to prove pathogenic, even for young cattle, the bacilli must be moderately abundant in the milk. Four calves of healthy stock were tested with tuberculin previous to the commencement of the experiment. They were then kept in special stalls and fed with the milk from a tuberculous cow which had reacted to tuberculin, and in whose milk bacilli in small numbers were found. Tested six months afterwards all of them still failed to react to tuberculin.

Wyssokowicz insists that there is a minimum number of tubercle bacilli which must be inoculated into an animal in order to induce the disease. Two or three bacilli inoculated into the peritoneal cavity