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TRICHINA SPIRALIS.

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A few months ago there was a festive celebration at Hettstädt, a small country town near the Hartz mountains, in Germany. Upwards of a hundred persons sat down to an excellent dinner, and having enjoyed themselves *more majorum*, separated and went to their homes.

Of these hundred and three persons, mostly men in the prime of life, eighty-three are now in their graves; the majority of the twenty survivors linger with a fearful malady; and a few, only, walk apparently un-affected among the living, but in hourly fear of an outbreak of the disease which has carried away such numbers of their fellow-diners.

They had all eaten of a poison at that festive board, the virulence of which far surpasses the reported effects of *aqua topiana*, or of the more tangible agents described in toxicological text-books. It was not a poison either dug out of the earth, extracted from plants, or prepared in the laboratory of the chemist. It was not a poison administered by design or negligence. It was a poison unknown to all concerned; and was eaten with the meat in which it was contained, and of which it formed a living constituent.

When the festival at Hettstädt had been determined upon, and the dinner had been ordered at the hotel, the keeper of the tavern arranged his bill of fare. The introduction of the third course, it was settled, should consist, as usual in those parts of the country, of *Roslewurst* and *Gemuse*. The *Roslewurst* was therefore ordered at the butcher's, the necessary number of days beforehand, in order to allow of its being properly smoked. The butcher, on his part, went expressly to a neighboring proprietor, and bought one of two pigs from the steward, who had been commissioned with the transaction by his master. It appears, however, that the steward, unfortunately, sold the pig which the master had not intended to sell, as he did not deem it sufficiently fat, or well-conditioned. Thus the wrong pig was sold, carried on a barrow to the butcher, killed and worked up into sausages. The sausages were duly smoked and delivered at the hotel. There they were fried and served to the guests at the dinner-table.

On the day after the festival, several persons who had participated in the dinner suffered from irritation of the intestines, loss of appetite, great prostration, and fever. The number of persons attacked rapidly increased; and great alarm was excited in the first instance, by the apprehension of an impending epidemic of typhus, or continued fever, with which the symptoms observed showed great similarity.

But when, in some of the cases treated by the physician, the features of the illness began to indicate at first acute peritonitis, then pneumonia of a circumscribed character, next paralysis of the

intercostal muscles and the muscles in front of the neck, the hypothesis of septic fever, though sustained in other cases, had to be abandoned with respect to these particular ones. Some unknown poison was now assumed to be at the bottom of the outbreak, and an active inquiry into all the circumstances of the dinner was instituted. Every article of food and material was subjected to a most rigid examination, without any result in the first instance. But when the symptoms in some of the cases invaded the muscles of the leg, particularly the calves of some of the sufferers, the description which Zenker had given of a case of fatal trichinous disease was remembered. The remnants of sausage, and of pork employed in its manufacture, were examined with a microscope, and found to be literally swarming with encapsuled trichinae. From the suffering muscles of several of the victims small pieces were excised, and under the microscope found charged with embryonic trichinae in all stages of development. It could not be doubted any longer, that as many of the one hundred and three as had partaken of *Roslewurst* had been infested with trichinous disease by eating trichinous pork, the parasites of which had, at least in part, escaped the effects of smoking and frying.

This awful catastrophe awakened sympathy and fear throughout the whole of Germany. Most of the leading physicians were consulted in the interest of the sufferers, and some visited the neighborhood where most of the afflicted patients remained. But none could bring relief or cure. With an obstinacy unsurpassed by any other infectious or parasitic disease, trichiniasis carried its victims to the grave. Many anthelmintics were arrayed to destroy, if not the worms already in the flesh, at least those yet remaining in the intestinal canal. Picric acid was employed until its use seemed as dangerous as the disease; and benzole, which had promised well in experiments upon animals, was tried without avail. Subsequent dissections proved the parasites to have been unaffected by the agents employed.

But medical science had unravelled a mystery; and if it could not save the victims, it was determined, at least, to turn the occasion to the next best account. The cases were therefore observed with care, and chronicled with skill. All the multifarious features of the parasitic disease were registered in such a manner, that there can hereafter be no difficulty in the diagnosis of this disorder. A valuable diagnostic feature was repeatedly observed—namely, the appearance of the flesh-worm under the thin mucous membrane on the lower side of the tongue, and the natural history of trichina in man was found to be the same as that in animals.

All observations led to the conviction that the trichina encapsuled in the flesh is in the condition of puberty. Brought into the stomach, the calcareous capsule is digested with the flesh, and the trichina is set free. It probably feeds upon the