

investigation, the cancer-mortality has been regarded, not in its absolute numbers, but in its proportion to the population and to the total mortality respectively. The tendency to Cancer is thus by every proof shown to be less in the North-West.

I have added another table, which exhibits the very different proportions in which the people of a few of our towns are affected with Cancer. One death from that disease occurred during ten years in the number of the population which is set after the name of each town. There are here, again, some striking contrasts in the figures, even between towns which appear to be very like one another. I have verified the facts in some instances by personal inquiry; but I forbear to comment on them, as I have not the local knowledge which might enable me to suggest an explanation of the differences.

London	237	Great Yarmouth	194
East London	342	Scilly Isles	133
West London	80	Bristol	193
St. George's, Hanover		Clifton	319
Square	156	Uxbridge	318
Birmingham.....	288	Reading	156
Mansfield	460	Kingsclere	414
Manchester	302	Newbury	275
Liverpool	337	Warwick	270
Wolverhampton	362	Anglesea	469
Norwich.....	210	Penzance	435

The foregoing considerations tend to show—I may not say they prove—the correctness of the proposition, that Cancer has no dependence on any malady anterior to the appearance of the first tumour, but that it originates in persons otherwise healthy and strong. If this conclusion is inconsistent with prevailing opinions as to the cause and nature of the disease, the collision of the facts proves the need for more satisfactory evidence on behalf of those opinions than is at present in our possession. The existence of an antecedent general malady is, as far as I can perceive, pure conjecture, being entirely destitute of proof, or even of reasonable support. The idea sprang up in error; and it has been perpetuated by the erroneous conclusions drawn from repeated want of success in surgical operations. But, if the opposite opinion be well founded, it furnishes a valuable argument for early operations in Cancer, and an argument which corresponds with their comparative success. Whilst yet the first tumour has undergone little diffusion, there is hope of a complete extirpation of the disease—a hope which quickly fades away as the tumour grows. I know nothing more distressing in practice than to meet a patient, who has carefully concealed this disease till she could bear it no longer, with a refusal to operate on it at all; yet this is the too frequent result of delay on the part of patients in consulting a Surgeon, and of early uncertainty as to the nature and probable progress of the disease. The conclusion at which I have arrived may possibly be of some advantage, if it only remove from the minds of patients the dread of discredit which too many suppose to attach to having Cancer; for, in fact, the power of generating the disease is rather a proof of a stronger than of a tainted constitution; and, on the whole, its appearance in one member of a family is likely to prove the exemption of all the rest. The horror connected with the avowal may thus be spared, and the fullest advantage of treatment may be gained by an earlier recourse to medical aid.

Original Communications.

ON THE ANATOMICAL LESIONS OF THE CATTLE-PLAGUE NOW PREVALENT IN LONDON.

By CHARLES MURCHISON, M.D.

DURING the last few weeks, I have dissected a considerable number of cattle, which have died of the present epizootic disease in all its stages. Although my observations are not yet ready for publication in detail, a brief notice of the principal morbid appearances which I have found will, at the present moment, not be devoid of interest.

The main anatomical characters of the disease, according to my observations, are catarrhal inflammation of the lining membrane of the respiratory passages, of the digestive canal, and, in fact, of the mucous membranes generally; a more or less fluid condition of the blood; and ecchymoses or hæmorrhages in various parts, such as beneath the skin, beneath the mucous membrane of the stomach and bowels, beneath the endocardium, and beneath the arachnoid on the surface of the brain. The parts which are most altered from their healthy condition vary considerably in different cases.

The lining membrane of the nasal passages, and more particularly of the windpipe and bronchial tubes, is invariably inflamed. The membrane is more or less reddened; and its surface is coated with a viscid fluid, and with numerous soft membranous flakes of yellowish exudation, some of them an inch or more in diameter. These flakes are easily scraped off from the subjacent membrane, which often presents a raw or excoriated aspect, but never any appearance of an eruption on the surface or of submucous deposit. The bronchial tubes are often filled up with frothy mucus, and with the inflammatory products thrown off from the mucous membrane; but the lungs and pleuræ exhibit little congestion, and no sign of inflammation, except as occasional complications.

The mucous membrane of the digestive canal is inflamed throughout; but in some parts the inflammatory signs are more intense than in others. On scraping off the thick layer of epithelium from the first two stomachs, which is done with abnormal facility, the subjacent membrane is found to be intensely red. The mucous membrane of the third stomach, or *omasum*, is still redder, and often presents patches of ecchymoses. It is in the fourth stomach, or *abomasum*, however, that I have found the inflammation most advanced. Here there is not only intense redness with much adhesive mucus on the surface, but the membrane is often studded with innumerable minute superficial ulcers, like those erosions which are so common in the ordinary catarrhal inflammation of the human stomach. In addition, the membrane often presents extensive patches of claret-coloured discoloration, apparently due to submucous extravasation. These patches are often surrounded by a distinct fissure in the mucous membrane; and, in some instances, the mucous membrane corresponding to the patch is in a gangrenous state, and more or less detached.*

* Mr. Simon informs me that he has found these appearances most marked in the *omasum*.

The small intestine is more or less inflamed throughout; but the inflammation is usually most intense about the middle. The coats of the bowels are much attenuated and softened; while the mucous membrane is intensely injected, and sometimes ecchymosed and deprived in a great measure of its epithelium covering, but coated with a quantity of transparent and viscid, or opaque and puriform, secretion. I have failed to discover any change of the solitary glands of the ileum which could be ascribed to the disease. Peyer's patches are usually less vascular than the surrounding mucous membrane, and throughout the disease very much less elevated and thickened than in a healthy animal. Their component glandules are more distinctly seen, because the epithelium covering which obscures them in health has been mostly removed. Many of the glandules seem empty, while others contain a minute drop of softened secretion, like pus, which can be squeezed out on the slightest pressure. There are no sub-mucous deposits, and none of the lesions running through the definite stages which I am familiar with in the typhoid or enteric fever of man. In this opinion, I am corroborated by Dr. A. P. Stewart, Mr. Simon, medical adviser of the Privy Council, Dr. Buchanan, my colleague at the Fever Hospital, Dr. J. Burdon Sanderson, and many other physicians who have dissected the animals, either in conjunction with me or independently.

It is right to mention, however, that in all of the cases which I have examined, many of the solitary glands, and sometimes certain of the component glandules of Peyer's patches, have been greatly enlarged, filled with a soft cheesy matter, and sometimes even ulcerated on the surface. A drawing of an inflamed piece of bowel, studded with these enlarged glands, might readily be thought to represent the lesions of enteric fever. Careful examination, however, clearly shows that the appearances in question are of old standing, and quite unconnected with the disease of which the animals have died. This view of the matter is confirmed by the fact that I have found precisely similar appearances—in some cases, indeed, even more strongly marked—in the small intestines of every one of four healthy oxen which I have examined. I remember also Professor Goodsir of Edinburgh describing this common condition of the intestinal glands in cattle, in his lectures on comparative anatomy, nearly twenty years ago.

The lining membrane of the large intestine is also inflamed. It is always more or less reddened, the redness being greatest over the prominences of the rugæ. Here also may be seen patches of ecchymoses, and sometimes superficial excoriations. The surface is coated with a quantity of viscid mucus, often mixed with blood.

The contents of the bowels are fluid, and consist of fæces mixed with inflammatory products, and often with blood.

The vagina, bladder, and urinary passages often, but not always, present signs of inflammation. The kidneys are often intensely hyperæmic, and the uriniferous tubes gorged with finely granular epithelium.

The liver and spleen appear healthy. The bile is thin, and of a light green colour. The mesenteric glands contain none of the abnormal deposit met with in the enteric fever of man.

The tissue of the muscles presents no alteration of its microscopic structure.

Lastly, it is worth mentioning, that in several animals suffering from the disease, which had been killed, the diseased organs appeared to me to be returning to a healthy condition; and that, from per-

sonal observation, I am satisfied that many animals are now condemned and sent to the knacker's yard, which are suffering from maladies totally different from the present epizootic.

Progress of Medical Science.

MIDWIFERY AND DISEASES OF WOMEN.

PARTIAL PROCDENTIA AT FOUR MONTHS: DELIVERY AT EIGHT MONTHS. Dr. C. A. Voorhies was called to visit a woman, aged about 24, the mother of one child. The patient was on her knees, holding on to the bedpost, with her hips thrown backward, and her abdomen forward, labouring under intense agony. She had for several days past voided only enough urine to make herself tolerably comfortable; and for eighteen hours had not been able to void any. She was labouring under the most intense excitement, with a quick but feeble and irregular pulse, pallid and anxious expression of countenance, and obstinate vomiting. On making a vaginal examination, Dr. Voorhies found in the external opening of the vagina a large protruding substance, having the tenacity of a fetal head. There was such violent tenesmus of the lower parts, that all efforts to reduce the protruding mass were in vain. He also discovered great distension of the bladder. With considerable difficulty, as the parts were entirely out of their natural position and shape, he introduced a catheter and drew off a large amount of urine. After the bladder was fully evacuated, the patient expressed himself relieved. On making another examination, Dr. Voorhies found that the mass had receded to just within the margin of the vaginal opening. A solid round tumour occupied the pelvic cavity. She acknowledged that she had arrived at about the fourth month of pregnancy. The os was pointing upward toward the symphysis pubis; and the fundus lay low down in the hollow of the sacrum, whence it had receded after the evacuation of the bladder.

On making an effort to reduce the organ, but little difficulty was experienced in carrying it back under the promontory of the sacrum; but all efforts to carry it up out of that position proved fruitless. Dr. Voorhies had her put in position in bed, regulated her bowels (which were obstinately costive), and watched the condition of her bladder, the latter relieving itself without further interference. She was treated on these principles for three or four days, not expressing any very great discomfort.

From this time Dr. Voorhies lost sight of her until he was called to attend her in confinement. This was just four months after he had attended her in the above described difficulty; which made her period of gestation about eight months, or a little less. When he arrived, the child was already born—a small shrunken-featured female, which afterwards lived and did well. Before the expulsion of the child, the woman had hardly discovered that she was in labour. She informed Dr. Voorhies that she never had quickened, or grown large as she had done before, and that at times she doubted her pregnant condition. The womb evidently did not become an abdominal viscus at any time during her pregnancy; and this fact, taken in connexion with the free expulsion of the child at eight months, led him to form the conclusion that in all probability the gravid womb remained in its state of displacement, and never took its rise out of the cavity of the pelvis during the whole period of gestation. (*Philadelphia Medical and Surgical Reporter.*)