POST-MORTEM IN A CASE OF EXTREME OBESITY.

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As showing the enlargement the various organs of the body may undergo in cases where there is a tendency to the general deposition of fat, the following notes may prove of interest to some readers.

On the morning of the 9th March 1877, while engaged in private practice in Preston, I received a hurried message to go at once and see a man who had been found dead in bed. When I reached the house I found a huge man lying dead. He had evidently been dead a few hours. As he had gone to bed on the previous evening apparently well, I acquainted his medical man with the circumstances of the case, and at his request made a *post-mortem* examination for him on the following day.

The subject of these remarks—W. S., aged 50 years—had previously been an overlooker in one of the cotton factories of the town, but owing to his increasing bulk he had been obliged to give up his situation, and for a few years before his death he had followed no occupation whatever. He was not a tall man (I should think about 5 feet 4 inches), but was extremely fat. He was very lazy; everything in the shape of movement was a trouble to him—so much so that for months before his death he seldom rose from his chair, unless it was at times, and that very occasionally, to stand at the open door of his house. His daughter and his sister-in-law informed me that a year before his death he weighed 30 st. 6 lbs. He was a perfect glutton, and was, it would seem, a heavy tax upon his daughter, who worked hard to support him. On the evening before his death he ate six eggs and two tea-cakes; and on one occasion—four months before his death—when Mr Foulis (Dr Smith's assistant) was attending him for bronchitis, he found his patient demolishing two loaves of bread, two bottles of porter, half-a-dozen onions, and half a pound of butter. It was the usual thing when Mr Foulis called to find his patient asleep on his chair, for he could not be got to bed. For months before his death he had not worn stockings; none could be got large enough for him.

Autopsy twenty-six hours after my visit to the house—a huge cadaver—very livid, almost black—rigor mortis well developed.

On making the customary incision from episternum to pubis the subcutaneous fat is noticed to be markedly increased. Before reaching the surface of the sternum I had to cut through quite two inches of fat. Towards the lower part of abdomen the adipose tissue between the rectus abdominis and the skin is nearly three inches in thickness; the rectus muscle itself is almost as thin as paper.

Chest.—The pericardium is coated with a thick layer of soft oily fat about half an inch in thickness. On opening the sac it is found to contain about an ounce and a half of serum.

The heart is very much enlarged—resembling in appearance that of an ox. The heart itself is slightly displaced; its base is a little lower down than usual, and more to the right side than normal. The whole of the right side of the heart is lying upon the diaphragm. The heart on its removal, and when emptied of the dark fluid blood which it contained, weighs 2 lbs. 6¼ oz. It is covered with a deep layer of fat. The aortic and pulmonic valves are healthy; the mitral and tricuspid, as far as could be ascertained by the finger inserted into the auricles, are also healthy. The aorta and pulmonary artery present here and there a few small atheromatous patches. I preferred keeping the heart intact, as it was a good example of simple hypertrophy—hypertrophy without the co-existence of valvular disease, and I ultimately sent it to the museum at St Bartholomew's Hospital.

Lungs.—The left lung is engorged with blood; its lower lobe is slightly œdematous; the upper lobe is emphysematous. The bronchial mucous membrane is hyperæmic. The right lung is also engorged.

Abdomen.—Fat is freely distributed through the omentum, and the appendices epiploicæ are particularly large. The liver is increased in size, weighing 6 lbs. 10¾ oz. It contains too much dark blood. On scraping a section of it the surface presented here and there small yellow foci—small areas of hepatic tissue deeply stained with biliary pigment. Capsule of liver normal. Gall-bladder contains fluid bile.

The spleen is enlarged and hard; it is dark in colour, and weighs 25 oz. It cuts like a cake, the sections falling asunder

like slices of soap. Its tissue is very firm, and easily breaks down on pressure.

The kidneys are with difficulty caught hold of, for they are deeply embedded in a thick mass of fat nearly an inch and a half in thickness. The two kidneys weigh together 25 oz. Both are deeply engorged with blood. Their capsule is removed with ease. Microscopical examination afterwards showed that they had undergone extreme fatty degeneration; the renal cells and stroma had a very oily aspect.

The venous system in general is engorged with dark fluid blood. Although the patient died yesterday morning, and the body has been lying in a cold room ever since, all the internal organs are warm.

The friends refused to grant me permission to examine the head.

All the organs of the body were enlarged in this case. As the result of increased functional activity, they had all undergone simple hypertrophy. The heart, for instance—taking the average weight, as given by Reid, as 11 oz.—was enlarged nearly three and a half times its normal size. The enlargement was in all probability co-incident with the enlargement of other organs, and was necessitated by an increase in the circuit of the circulation caused by the deposition of fat. Had the hypertrophy been confined to the left side of the heart the enlargement might have been one possibly consequent upon the destruction of the secreting cells of the kidney, but it was too general to have such a causation. There are many larger and heavier hearts than the one I have just recorded, but in the most if not all of them there has been concurrent disease—either endocardial changes, aneurism, or Bright's disease. Within the last few days we have received at the College of Medicine here a large heart from Carlisle, which on its removal from the body weighed nearly 50 oz., but its valves are diseased. For a simple hypertrophied heart—for a heart which has increased in size in accordance with a general process of enlargement throughout the body—38 oz. is a good weight. In its weight, however, the heart in this case has maintained as nearly as possible that proportion to the body which Reid[1] mentions, viz., 1 to 169.

[1] Quain's *Anatomy*, vol. i. p. 321.