

## ADENOMA OF THE STOMACH.

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THE subject from whom this specimen was taken died two years ago in the Dublin District Asylum, at the age of twenty-nine years. He had spent all his life in workhouses and asylums, being an imbecile or high class idiot. Save for an occasional tendency to depression, not very common among patients of his type, there was nothing special about his mental symptoms. His general health seemed good till the oncome of his last illness, though he was of a frail build and meagre habit. A few months before his death he began to lose flesh very rapidly, and became very feeble. The temperature was generally subnormal—never raised. There was no vomiting—no complaint of pain. Occasional sharp attacks of diarrhoea, lasting two or three days. Towards the close there was absolute anorexia, but this was hardly to be wondered at considering his general condition of debility. He died apparently of mere exhaustion.

On autopsy there was found in the apex of each lung a small caseous nodule with a firm capsule, surrounded by some cicatricial hardening—no appearance of recent trouble. The heart and aorta were normal. The abdominal viscera presented no abnormality save that to be described in the stomach. The abdominal glands were normal. There was no trace of epitheliomatous growth in the intestines, nor of secondary cancerous deposit anywhere.

The stomach was dilated and rather baggy, the wall generally being somewhat thin. The mucous membrane was of a uniform pale gray colour. There were no hæmorrhagic discolorations and no special injection. The surface presented a multitude of irregularly arranged tumours, varying in size from the head of a large pin to a large pea. They were rather more frequent along the greater curvature and on the posterior aspect. The cardiac extremity of the great curvature contained few of these growths. On the other hand, they were very numerous towards the pylorus on

all aspects of the organ. Here they were generally small and perfectly sessile, and the condition presented was exactly that which the French authors have described under the name of the "état mamelonné" (mamelon=mammilla). Among these elevations and elsewhere arose distinctly pedunculated growths, some of which were arborescent in form. Two large growths existed on the posterior aspect of the stomach, one about the middle of this surface, one near the pylorus, of a perfectly dendriform shape, with an elongated peduncle (stem) and decomposed branches. From the base of the stem to the extremity of the twigs these growths measured almost  $1\frac{1}{2}$  inch. One of these is still to be seen in the preparation on the table. The other has been removed for microscopic examination, and sections from it are beneath the microscopes.

Microscopically the following are the appearances found:—In the neighbourhood of the new growths the stomach glands are degenerated, presenting a little differentiated or undifferentiated cylindrical epithelium instead of the normal secreting cells. The tumours consist of a congeries of tubes and saccules lined with cylindrical epithelium cells, containing a clear or slightly granular protoplasm, and towards the base a deeply staining nucleus. A basement membrane is distinct. The tubes turn and twist in various ways, showing infinite variety according to the manner of section. In some places the appearance is presented of a distinct cyst, with papillary or dendriform growths filling it up. Here and there, more particularly in the cystic enlargements, the cylindrical cells have assumed the calyciform or beaker shape. The epithelium lined cavities and tubes are separated from each other by a variable amount of connective tissue, which, towards the centre of the growths and where it occurs elsewhere in quantity, assumes a fibrous character. Delicate bands of connective tissue run into the centre of the various papillary and dendriform out-growths. Here and there through the connective tissue are deposits of small celled infiltration. With exceptions to be noted below, the epithelial elements do not extend beneath the muscularis mucosæ, which remains intact. The submucous tissue is raised into an elevation corresponding to the degree of prominence of the sessile tumours or runs far up into the stem of the dendroid tumours, carrying vessels.

In these arborescent tumours the peduncle (stem, measuring little under  $\frac{1}{4}$  inch in diameter in the largest) was free from internal epithelial growths, and the first and larger divisions showed the

submucous free from invasion, but among the finer subdivisions the muscularis mucosæ was often interrupted, the *culs de sac* of the tubules extending beneath that layer. I cannot make out any independent tubules or cysts occurring beneath the muscularis, and not obviously belonging to the superficial series.

Tumours of the stomach, resembling those above described, have been long known under the names of gastric polypi, gastric polyposis, gastritis polyposus, &c.

Brissaud, in an excellent memoir, published about eight years ago, tells us that the history of these growths dates from the writings of Cruveilhier (1833), and he quotes a number of observations made, chiefly by French authors, since that time. This author himself divides gastric polypi into fibrous and mucous, and he proposes for the latter the name of gastric polyadenoma, stating that this affection had not hitherto been described under the name of adenoma.

Characteristic of polyadenomatous tumours, according to B., are:—(1) Their structure similar to that described; (2) The fact that they involve only the mucous membrane, and are freely movable on the cellular tissue beneath; (3) “The identity of volume of all the polypi in each individual case.” He quotes, from Camus-Govignon, a case of Rouillier’s in which there were 80 polypi, *each* the size of a hazel-nut.

He sees no reason for believing that this condition is the result of chronic gastritis. Gastritis had not existed in the case of which he made a special study. It had preceded a case of Vulpian’s, but neither gastritis nor the existing lesion had been suspected in the cases of Cruveilhier, Richard, and Lionville. One case is recorded associated with tuberculosis, and one with alcoholism.

He dwells upon the advanced age of the patients, pointing out that there is a tendency to adenomatous affections in the old.

Ménétrier has devoted a couple of exhaustive papers, in

the Archives de Physiologie (1888), to "gastric polyadenomata and their relations to cancer of the stomach." He describes two varieties, the polypous polyadenomata and the flat polyadenomata (*polyadénomes en nappe*). The latter are described as being large hypertrophic plaques, projecting above the rest of the mucous membrane, occupying almost the entire extent of the stomach, rising in great folds, and recalling pretty much the appearance of the cerebral convolutions. We need not further consider this variety except to note that M. believes in its essential identity with the polypous variety, and holds that either, though originally benign, may become malignant and infecting. He divides the polypous polyadenomata into two further types—(1) in which the hypertrophy attacks especially the excretory portion of the glands; and, (2) in which the process more particularly effects the glandular *cul de sac*; but he admits an intermediate type in which both parts are equally involved. It seems to me that my case belonged to the mixed type.

Ménétrier dwells, like Brissaud, on the similarity in size and age (state of development) of the tumours in any individual case. No clinical history pointed to the special lesions in any of the cases he found recorded. The sufferers have almost all been old people, and almost all M.'s own cases have presented atheromatous degeneration of the arteries. Unlike Brissaud, he has found gastritis a common antecedent, and he thinks "that chronic irritation plays a part in the production of gastric adenomata, though it is not their sole cause, nor will it explain all the cases." He conjectures that there may be a more general influence at work, and he refers to the fact that in many cases there were found productions of similar nature of other organs (adenomata of uterus, intestinal epithelioma), and to the coincidence of arterial atheroma.

My case presents the following peculiarities :—

1. The patient was comparatively young.
2. The tumours were of very various sizes and shapes, and suggested anything but that they were all of the same age and degree of development.
3. There were no hæmorrhages into the stomach, and no indications of atheroma.
4. In what appeared to be the older and more developed growths the epithelial structure had broken through the muscularis mucosæ. Nevertheless, and in spite of the difference noted under (2), I cannot but think that these growths are identical with those described by Brissaud and Ménétrier. On the other hand, there were no depots of epithelial tubules occurring deeply through the submucous coat, as described by Ménétrier in cases which had become epitheliomatous. It is probable that in my case a transition period is represented.
5. The patient appears to have died of this condition—an unusual circumstance.

That there were no particular symptoms seems to have been merely in accordance with what generally occurs. We may take it that there was no pain (as the patient was quite capable of complaining, and was constantly interrogated), and this also appears to be the rule.

The cause in this individual case I do not pretend to conjecture. Up to the illness which terminated his life the patient was not known to have suffered from any symptoms that might point to gastric trouble. He was certainly not an alcoholic. He had, as above noted, suffered at some time from tuberculous lung mischief, but this had become quiescent, and probably in no way interfered with his general health for some years.

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MR. F. A. NIXON remarked that it was remarkable there should be such extensive organic disease of the stomach without any

symptoms. Very frequently, in patients of weak intellect, subjective or objective symptoms are very badly marked. He remembered a case of melancholia in which the patient had a most extensive pleural effusion, and yet he made no complaint, nor had he any dyspnœa.

DR. NORMAN, in replying, also remarked on this fact, and said he had met quite a number of patients of this class who died of phthisis and yet had no cough.