CLINICAL LECTURE

on

PEPTIC ULCER

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This morning I wish to discuss with you the surgical treatment of peptic ulcer. I am going to confine my remarks in the main to operative treatment, for in the wards and in your lectures the question of diagnosis has been fully dealt with. Before giving you what I consider the rational surgical treatment, there are certain indisputable facts in gastric physiology and pathology which must be mentioned.

First of all let me remind you that the proximal 2/3rds of the stomach mucous membrane alone posesses the oxyntic cells, and that the distal 1/3rd contains no acid producing glands. We must also realise that a peptic ulcer is the last stage in some antecedent disease process, and that by treating the ulcer we are not treating the cause, for this is at present unknown. Trauma, irregular meals, focal infection, nicotine, etc., have all been accused, but so far, not convicted. We know that acute peptic ulcer can be produced experimentally with the utmost ease, but also that this heals very readily.

Why is the Bantu immune to peptic ulcer? I have not seen a single case nor do I know of anyone who has, either at operation or at autopsy.

Ninety per cent. of peptic ulcers are found in the distal half of the stomach and first portion of the duodenum, so the great majority are juxta pyloric and hence occur in mucous membrane constantly bathed in acid secretions.

A small percentage of chronic gastric ulcers have carcinoma engrafted upon the simple ulcer and the early malignant ulcer cannot be distinguished clinically from the simple variety. Carcinoma engrafted on a duodenal ulcer is unknown.

Nineteen per cent. of gastric ulcers and fourteen per cent. of the duodenal variety perforate, a state of affairs which greatly influences prognosis; then too we must remember the tendency for these ulcers to bleed with resulting anaemia and chronic invalidism.

We also know from the healed scars found at operation and in the p.m. room that a certain number of these ulcers tend to heal spontaneously.

The findings from fractional gastric analysis have been somewhat disappointing, for, although we find that as a rule the acid content of the gastric juices is raised in simple ulcer cases, unfortunately we may find as high or even higher acid readings in perfectly normal persons. However, one thing fractional analysis has taught us is, that the patient with a high pre-operative acid index is very liable to a post-operative stomach ulcer.

The present is an opportune time to review the whole problem of the right treatment of this common surgical complaint for during the past ten years no new surgical procedure has been introduced and in addition the literature of the past two years abounds with the follow up records from various European and American surgical clinics. I shall deal with one of the latest I have been able to lay my

hands on and I hope you will find it instructive. Itemanates from the Massachussets General Hospital in Boston where a surgeon and a physician have collaborated—the physician treating a certain number of ulcer cases along conservative lines and the surgeon operating upon the rest. The follow up has been very painstaking and thorough.

MEDICAL TREATMENT.

86 cases (6 gastric, 80 duodenal).

Follow up from 2 to 10 years after commencement of treatment.

Satisfactory	58.1%
Improved	14.0%
Unimproved	8.1%
Operated upon	10.5%
Died from ulcer	2.3%
Died from other causes	7.0%

SURGICAL TREATMENT.

103 cases (78 duodenal, 25 gastric) includes the 10.5% medical failures:

Satisfactory	72.9%
Unsatisfactory	14.5%
Immediate and remote mortality	5.9%
Died from other causes	6.7%

OPERATIVE PROCEDURE.

Gastric ulcer (151 cases).

	total	A.	B.	C.
Gastro-enterostomy	24	20	3	1
,, ,, and infolding	29	22	5	2
,, ,, and excision	43	35	2	6
Excision alone	23	8	4	11
Infolding alone	3	2	—	1
Partial gastrectomy	17	12	2	3
Pylorectomy	4	3	—	1
Gastro-gastrostomy	1	—	1	—
Sleeve Resection	4	1	2	1
Pyloroplasty	3	1	—	2
	151	104	19	28

All these cases have been followed up from 2 to 10 years.

A = class can eat anything.

B = class has occasional discomfort, at once relieved by dieting.

C = class unable to carry on—periodic recurrent attacks of ulcer sym.

OPERATIVE PROCEDURE.

(Duodenal ulcer—261 cases.)

Post gastro-enterostomy alone	147	92	28	27
,, ,, ,, and infolding	70	52	6	12
,, ,, ,, and excision of ulcer	10	6	2	2
,, ,, ,, and pyloric ligature	3	2	1	—
Pylorectomy and gastro-enterostomy	10	10	—	—
Excision or infolding of ulcer alone	16	6	3	7
Pyloroplasty	1	1	—	—
Pyloroplasty and Excision	4	1	—	1
	261	170	40	49

If you scrutinise the above tables more closely you will notice that the more radical the treatment the better the result and you must remember that the surgical cases were all definitely proved ulcer cases while the diagnosis in the medical series rests on a clinical interpretation of signs and symptoms only. Remember too that ten years ago—and some of the operation statistics go back as long as that—gastro-enterostomy alone was considered the routine treatment. To-day we try to remove the ulcer bearing area as well and a gastro-enterostomy alone is reserved for those cases where more effective treatment is impossible—such cases as where the ulcer is posterior and penetrates into the pances.

With these figures before you I think you will agree that surgery has a good deal to its credit. Our mission to humanity is the alleviation of suffering and our duty to the State the return of the invalid to the ranks of the workers and producers at the earliest posible moment, and I think surgery fulfils both these obligations. Not only are our present day results from surgery good, but now that the treatment of peptic ulcer has become more standardised, I think the follow up results during the next ten years will be much better than those I have quoted to you to-day.

Some years ago the Sippy diet was haled as the greatest advance made in internal medicine during the present century, but I honestly believe that the physician who continues this treatment for more than a year without an absolute cure, should be relegated to somewhere near the bottom circle in Dante's Inferno. At the present time this selfsame physician fondly imagines that he should be received straight into Abraham's bosom for having rescued one so-called victim from the ruthless knife of the surgeon. The Sippy diet, too long continued with its aftermath of chronic invalidism, perforated ulcers and superimposed carcinoma has almost as many deaths and disabilities to be placed on its account as the hot fomentation treatment in acute appendicitis.

In my opinion our operative treatment should be radical, i.e. where posible the ulcer should be removed freely and at the same time the continuity of the intestinal tract re-established with the least disturbance of the normal physiological relationship. In the stomach I remove the ulcer bearing area widely—either by excision, pylorectomy or partial gastrectomy according to the site and size of the ulcer and then I usually re-establish the continuity of the intestinal tract by the Billroth 2 or Polya method. This is the method of choice, but each case must of course be decided upon its merits. I totally disagree with the surgeon who removes ½ or 1/3rd of the stomach in order to deal with a small juxta pyloric ulcer. Be radical, but for God's sake don't be ruthless! Twice I have been able to do a radical excision through a Finn pyloroplasty incision, and these two cases, as far as I know, have done well, but how often can one accomplish this This then is my considered opinion; if a gastric ulcer, in spite of dieting, still causes symptoms after a year, the patient should be put in the hands of a competent surgeon. Do a radical excision where possible and don't be satisfied with a mere gastro-enterostomy. In cases of doubt I don't hesitate to make an incision into the stomach and inspect the mucous membrane from inside.

As regards duodenal ulcer the same criteria apply: remove the ulcer if possible, either by excision or pylorectomy, and re-establish your intestinal tract by means of the Polya method or a gastro-enterostomy.

After-treatment is of course of paramount importance and each gastric or duodenal case should be carefully dieted for at least six months after his operation. Peptic ulcer, instead of being a battle ground between physician and surgeon, should be a field where these two sections of the medical profession could advantageously join forces. If a physician and a surgeon agreed to collaborate, I think it would be of the greatest benefit to the patient, and in my opinion it is in the sphere of after treatment that the physician would reap his richest reward.

THE ALLERGIC DISEASES.

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The term "Allergy" introduced by Von Pirquet, will be used in its broadest sense. Under this heading it is intended to group such terms as anaphylaxis, serum sickness, specific hypersensitivity, protein sensitivity, because the clinical conditions which fall under these various heads all give rise to the eame type of phenomena, however different they may seem on a superficial examination.

In 1839 Magendie reported the fact that dogs which had received injections of egg albumin died suddenly on receiving a second injection; and in 1894 Flexner found that animals which had received one injection of dog serum died if a second dose was injected *after an interval of some time*, although the second dose was sublethal for control animals.

It remained for Richet to show and demonstrate the anaphylactic state and to call the group of signs and symptoms produced by a second injection into a previously sensitised animal "Anaphylaxis".

Pirquet and Schrek studied this phenomenon in children, and described a condition known as "Serum Sickness" which arose when serum was injected for diseases. This syndrome appeared seven to ten days after the injection of the specific serum. They also observed that these symptoms could be made to appear at once if a small dose of the same serum was injected some time after the original injection of the therapeutic serum.

Rosenau in 1906, by a series of careful experiments, finally and conclusively showed the remarkabe effects met with in cases of hypersensitivity.