An Address

ON

THE DIAGNOSIS OF CANCER OF THE STOMACH.*

BY

WILLIAM GORDON, M.D., F.R.C.P.,

CONSULTING PHYSICIAN TO THE ROYAL DEVON AND EXETER HOSPITAL,
AND TO THE WEST OF ENGLAND EYE INFIRMARY.

WITH the knowledge at our disposal cancer of the stomach should often be diagnosed earlier than it is. In the following epitome of the subject I have tried to give just the indications which are certainly useful and to avoid unnecessary repetition.

Practically all clinically discoverable gastric cancers are primary, and almost all are carcinomatous. Gastric sarcoma is a rare disease, probably not accounting for more than 5 per cent. of the cases, and, although possible at any age, is only to be seriously considered in patients under 30. It may grow to a very large size, which should be suggestive of its nature. Clinically discoverable secondary cancer I have never met with.

FACTORS IN THE DIAGNOSIS.

Let us consider first the chief factors in the diagnosis of primary gastric cancer.

Frequency, Age, and Sex.

Cancer of the stomach is now the commonest of all cancers in this country; therefore we must always be on the look out for it. The slight difference in its incidence in males and females is quite unimportant. It is commonly said to be most frequent between the ages of 40 and 60, and that is a very misleading statement; for that is only true of the population at large, and is quite untrue of the patient. The liability to gastric cancer (according to the figures of the Registrar-General) rapidly increases, both for men and women, up to 75, after which it slightly decreases for men and slightly increases for women.

Duration of Symptoms.

The disease varies widely in duration, more widely than do most cancers. Some cases, especially in younger people, end within three months. A few last over two years, a very few indeed perhaps to four years. The average duration from the onset of symptoms may perhaps be put at about a year. Symptoms which have lasted more than eighteen months, unless then associated with wasting and cachexia, are unlikely to be due to cancer. Yet once I have seen a woman, stout and rosy, with symptoms which had not varied for two years, who was found at operation to have an extensive carcinoma of the stomach. It is worth while remembering that pyloric growths are more apt to last long than growths further to the left.

Predisposing Conditions.

Gastric ulcer sometimes becomes the seat of gastric cancer. A curious difference of opinion has arisen in late years with regard to the frequency of this sequence. The older observers were unanimous that it was unusual. Suddenly someone launched the idea that it was quite common—that as many as 70 per cent. of gastric cancers were preceded by a clear clinical history of gastric ulcer. Now, however, an abundance of evidence—clinical, pathological, and radiological—has been accumulated, proving conclusively that the older view was right. The explanation of the mistake would appear to have been faulty pathology. It is, in fact, an important clinical truth that most patients with gastric cancer have not previously suffered from any sort of serious gastric disorder; so that when an elderly person begins to suffer, for the first time in his or her life, from “indigestion,” the possibility of cancer of the stomach should at once occur to one’s mind.

Heredity counts. When a single case of cancer has occurred in a patient’s family too much stress should not be laid upon it; but when several cases have occurred in near relatives we ought to be suspicious.

Locality also counts. When a patient comes from a locality in which cancer is rife—there are such localities—we should be additionally cautious in deciding against cancer.

Significant Symptoms.

In rare cases gastric cancer is “latent” in one or other of three ways. Either (1) all characteristics are absent, most often in old and feeble persons; or (2) gastric symptoms are replaced by symptoms either of cachexia or of some complication or intercurrent disease; or (3) gastric symptoms are masked by those of secondary deposits in other organs.

The onset may be either insidious or almost sudden—actually sudden when it takes the form of a haemorrhage.

The *significant symptoms* are: “indigestion,” anorexia, weakness, wasting, anaemia, pain, vomiting, haemorrhage, tumour, tenderness, fever, offensiveness of breath or vomit, diarrhoea, dysphagia, enlarged supraclavicular glands, oedema of the feet, thrombosis of veins. The “cardiac sign” should always be looked for, and, where there is the slightest chance of radical removal, the x rays, test meals, and search in the stools for “occult blood” should be matters of routine. I will take these in order.

“Indigestion.”—Discomfort after meals, fullness, weight, nausea, flatulence, pyrosis, none of them in themselves characteristic, become suspicious when arising for the first time in a person over 40, and still more so when the age is greater. The tongue may be clean or furred.

Anorexia.—Anorexia is one of the earliest symptoms in about 30 per cent. of the cases, and sets in sooner or later in 80 per cent. Sometimes meat is especially disliked. Once anorexia begins it generally goes on to be absolute. When present it is highly suggestive of cancer. In a recent paper Dr. Vilvandré says: “Carcinoma has been found in practically every case in which there has been aversion from food.”¹ Nevertheless there are cases in which the appetite remains excellent.

Weakness.—Weakness which cannot be accounted for is often an early sign, and, when clearly in excess of what the apparent “indigestion” and other conditions present account for, is suggestive. Some loss of weight and anaemia will generally be found as well, if looked for. In cases of “senile heart” it is not sufficiently well known that an unaccountable rapid breakdown of compensation, previously good, may be caused by the supervention of carcinoma in some abdominal organ.

Wasting.—It is important to remember not only that wasting may be very slight at first, but that treatment may cause a considerable gain in weight, and for a considerable time. A change of diet, combined with washing out of the stomach, has been known to produce a gain of 19 lb.; a cheering error of diagnosis has been followed by a gain lasting for three months; and (a curious circumstance still unexplained) an exploratory operation, in which the cancer has been found, has apparently been the cause of an increase of 63½ lb. during four months. Sooner or later, however, wasting makes its appearance, and, though it may have been checked for a time, returns and progresses; and this return is in itself suggestive. Wasting is most marked when an orifice of the stomach is involved. Often the abdomen is first affected, then the breasts, neck, and face. The skin tends in time to become loose and inelastic. Inquiry should, of course, be made as to whether the loss of weight can be fully accounted for by the taking of too little food, since that would deprive it of its special significance. Also the urine will, of course, have been examined for sugar and albumin; tubercle and all causes of fever will have been excluded, and Graves’s disease (which may cause surprisingly rapid loss of flesh) proved absent.

A rapid rise in weight in cancer of the stomach may be due to the onset of (1) ascites, (2) pleural effusion, or (3) a rapid and extensive secondary cancer of the liver.

Anaemia.—Anaemia may be of any degree up to producing an appearance which may closely resemble that of pernicious anaemia. But the characters of the blood are

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those of secondary anaemia; and the failure of treatment, now so successful in pernicious anaemia, would distinguish. Possibly the diseases may occasionally coexist.

Pain.—The most important points to remember about pain in gastric cancer are (1) that about 13 per cent. of the cases are painless throughout; (2) that pain is present at the onset only in about 33 per cent. of the cases; (3) that although at first usually occurring only after food, it tends later to become continuous, and to be not greatly worse after food nor much relieved by vomiting; (4) that recumbency may increase it; (5) that food sometimes relieves it; (6) that it becomes severe at some time or other in nearly half the cases; and that (7) lastly, according to Fenwick, it is apt to be accompanied by a remarkable irritability and restlessness, which he considers suggestive. The characters of the pain are usually not very helpful, but in a recent case I observed the occurrence of the sort of pain which the late Mr. Marmaduke Shield believed to be characteristic of cancer in breast tumours—namely a “sharp, sudden twinge or shoot like an electric shock or the prick of a needle.”

Vomiting.—Vomiting, like pain, is absent throughout in about 13 per cent. of the cases; but it is very rare for both pain and vomiting to be absent together. Vomiting is less often an early symptom than pain, although it is sometimes present at the onset. Frequent vomiting is usual in the later stages; it is often a special feature of diffuse cancerous infiltration of the stomach—so-called “leather-bottle” stomach—which contracts its own cavity as it grows. Vomiting at considerable intervals—such as once in two or three days—of large quantities of dark brown, sour-smelling, frothy liquid is, on the other hand, indicative of gastric dilatation, which may be due to cancer; in this last condition food eaten days, or even weeks, previously may be found little altered in the vomit.

Haemorrhage.—Bleeding may show itself by haematemesis, malaena, or by “occult blood” in the faeces. Haematemesis only occurs in about 33 per cent. of the cases, malaena still less commonly, although some amount of bleeding into the stomach probably takes place in every cancer. “Occult blood,” therefore, should always be looked for where the diagnosis is in doubt and successful operation is possible. When found, it means at least some form of organic lesion of the stomach. When constant it is strongly suggestive of cancer. When haematemesis occurs it is generally slight and looks like coffee-ground. In only about 10 per cent. of gastric cancers is there a considerable bright red bleeding, such as is so common in gastric ulcer. But such a sudden gush may, in rare cases, be an early symptom. In about 1 per cent. haematemesis may be immediately fatal. At a late stage of the disease, when the patient has become very feeble, a serious haemorrhage may only produce syncope and collapse, without vomiting.

Tumour.—A tumour is discoverable sooner or later in about 75 per cent. of the cases, and it is possible that this proportion might be even greater if examination of the abdomen under an anaesthetic were more often carried out. It is courting failure to delay operation until a tumour is evident; though it is important to remember that a discoverable tumour does not necessarily mean that a successful operation has become impossible. In connexion with the subject of tumour, it is desirable to recall the proportions in which different parts of the stomach are affected by cancer. They are as follows:

Pylorus	...	...	...	about 60 per cent.
Cardiac orifice	...	...	...	10
Lesser curvature	...	...	...	10
Whole stomach	...	...	...	6
Posterior surface	...	...	...	5
Greater curvature	...	...	...	3
Anterior surface	...	...	...	2
Fundus	...	...	...	1½

Multiple growths occur in about 3 per cent. Of the various growths, pyloric cancers are palpable in about 70 per cent. of the cases; growths near the cardiac orifice only in about 50 per cent., since they lie under the ribs and liver; those on the anterior surface and the curvatures in about 80 per cent., whilst those on the posterior surface are usually not palpable at all. We must remember also that a large soft growth may lie absolutely under the hand palpating the abdomen and yet be impossible to feel. I

have seen such a growth at operation; its presence had had to be diagnosed without feeling it.

It is also desirable to recall the frequency with which various regions of the abdomen are seats of tumours, thus:

Epigastric and umbilical regions, each about 33 per cent.
Hypochondriac regions, right or left, each about 16 per cent.
Hypogastric region (always pyloric tumours), about 2 per cent.

A tumour may rarely be the first sign of trouble. Also a tumour may be palpable and diagnostic whilst the patient is still in good general condition. It is necessary to repeat, because so often forgotten, that a tumour which cannot otherwise be felt may often be felt easily under chloroform.

The size, shape, and consistence of the tumour vary greatly. At the pylorus the tumour is generally small, oval, or tubular, firm and sometimes nodular, but matting or infiltration of surrounding structures may alter its character. Elsewhere the masses felt may be soft or firm, regular or irregular in shape. The tumour is often visible as well as palpable. It moves with respiration and can be moved with the hand, often remarkably freely, especially a pyloric tumour, which may be sometimes moved several inches in every direction, unless fixed by adhesions, although it is unwise to assume the absence of adhesions because the movability is fairly free. Pyloric tumours are those which are most often found near the umbilicus—a little above and to the right of the umbilicus is a common position for them. Gas may be sometimes felt to bubble through a pyloric tumour. Cancer of the whole stomach is apt to form an oval or elongated tumour, projecting into the epigastrium from under the left ribs, with a well-defined lower and an indistinct upper border; this tumour tends to diminish in size as the cancer gets older.

Some tumours only descend from beneath the ribs when a deep breath is taken, so that it should be an invariable rule to ask for such a breath to be taken. Gastric tumours are generally dull on light percussion and resonant on more forcible percussion. A gastric tumour may decrease in size, or even disappear, when extensive sloughing has occurred or when a fistula has formed.

Fever.—Fever, like haematemesis, occurs in about 33 per cent. of the cases at some time or other. This is often forgotten, and mistakes are made in consequence. I have drawn attention to this source of error, in cancer generally, in a former paper.² In about half the febrile cases the fever is continuous. Chills, headache, and pains in the limbs may be observed, and the temperature sometimes reaches 102° F. or 103° F., though usually only 100° F. or 101° F. Perigastric suppuration is present in some of these febrile cases, and should always be looked for. Considerable leucocytosis of polymorphonuclears would suggest pus.

Offensiveness of Breath and Vomit.—These are specially present when gastro-colic fistula has occurred, when the odour may be actually faecal. But offensiveness may occur in absence of fistula, and is suggestive of cancer.

Diarrhoea.—This may recur from time to time, and is doubtless due to gastric fermentation. It may be early.

Dysphagia.—Dysphagia may occur when the growth is at the cardiac orifice. Then the x rays should help.

Enlarged Supraclavicular Glands.—These are quite rarely found. But I remember a case, seen many years ago, where such glands were conspicuous, and formed a chain in the neck, diminishing from below up; they supplied a valuable aid in the diagnosis; the cancer was the most rapidly growing and widely disseminated gastric cancer that I have seen. I refer to it because in Vienna I have found a tendency to deny altogether the value of this “Virchow’s gland.” Care must, of course, be taken to exclude other causes for the presence of these glands. Their absence has no significance. Obviously this is a late symptom.

Oedema of the Feet.—This, in absence of any other cause, should add to the suspicion of malignancy. It is a late symptom.

Thrombosis of Veins.—It has been asserted by some German writers that, when the diagnosis of cancer is in doubt, the appearance of thrombosis of veins anywhere makes cancer probable.

"Occult Blood" in the Stools.—The finding of "occult blood" in the stools, if constant, is most suggestive of cancer. Three days of abstinence from all food containing either haemoglobin or chlorophyll must precede the examinations.

Test Meals.

The examination of the fasting gastric juice is often essential. The points to be laid stress on are: (1) absence or marked diminution of free hydrochloric acid (absent, however, also in some cases of gastritis, in gastric atony, in pernicious anaemia, and in acne rosacea); (2) presence of lactic acid; (3) foul odour; (4) blood; (5) pus; (6) fragments of growth; and (7) sarcinae in pyloric obstruction. The absence of free hydrochloric acid is very suggestive of cancer; the presence of lactic acid has recently been claimed to be pathognomonic of cancer by Professor Craven Moore and Dr. Roberts, dealing with 22 cases.³ It will be most important to confirm this conclusion by a larger number of cases and to determine how early the acid can be discovered. Fragments of growth are conclusive, but are very rarely found.

X Rays.

These are of the utmost value in many cases, and when available should invariably be used. But there is no doubt that they sometimes mislead; much, however, depends on the skill of the radiographer. The fact is that here, as in so many other instances, the findings of every method must be correlated with those of every other. In the case of the plump rosy woman above alluded to, the x rays, in the hands of my colleague Dr. Miller Muir, declared unreservedly for cancer. Details of x-ray work are outside my province. Dr. Spriggs's valuable recent paper should be carefully read.⁴ Dr. Marxer's "slow cinematograph camera" seems a most useful advance.

The "Cardiac Sign."

I described this sign in 1903, and twenty-five years' experience has only confirmed my original estimate of its great value. For it is almost pathognomonic of carcinoma. The only other conditions capable of producing it besides carcinoma are (1) starvation, and (2) severe diarrhoea. These two conditions must, therefore, be always borne in mind when looking for it. It is curious that this sign is usually absent in sarcoma, just as wasting is often absent in the early stages of sarcoma.

The sign consists of a remarkable diminution, which may go on to complete disappearance, of the deep cardiac dullness in the recumbent posture, when there is nothing else to account for it. When the question of carcinoma of some internal organ has arisen, if the recumbent cardiac dullness is found to measure only $1\frac{1}{2}$ inches or less across, instead of the normal 3 to $3\frac{1}{2}$ inches—it is often reduced to the size of a postage-stamp—in the absence of true emphysema as shown by good chest expansion, or of any other chest disease, which could either draw the heart backward or cover it with lung the odds in favour of the existence of cancer are about 4 to 1; whereas if the recumbent cardiac dullness is of normal width (in the absence of cardiac enlargement or of any chest condition which could either hold the heart forward or retract the lung) the odds are about 4 to 1 against cancer being present. This sign is commonly accompanied by a remarkably feeble pulse and feeble heart sounds.

This "cardiac sign" is apt to be conspicuous in gastric carcinoma cases, and it is rather absurd of people, who cannot make it out, to speak disparagingly of the resources of medical diagnosis. It may be, moreover, an early sign of cancer. I remember a case of cancer (it was of the sigmoid, however) twenty years ago, in which my friend Mr. Russell Coombe and I had made an early diagnosis, and had asked a well-known London surgeon (since dead) to operate. He said, "But you cannot diagnose cancer on such slight grounds." We replied that the diagnosis was made, and that we should be obliged if he would accept it. He did, the cancer was found and removed, and the patient is still alive. Another case affords a useful contrast to this. A friend, who had convinced himself of the value of the cardiac sign, sent an early case of uterine carcinoma to a gynaecologist of note, and, as he expressed it, "had the

floor well wiped with himself"; later the gynaecologist apologized, but operation had then become impossible.

I would suggest the following explanation.

1. The heart tends to become small in carcinoma cases (brown atrophy).

2. The lungs tend to develop a spurious emphysema (Fenwick), which I find can be distinguished from true emphysema by the normal expansibility of the chest—a condition perhaps due to a loss of elasticity in the lungs, analogous to the loss of elasticity in the abdominal skin so often seen in cases of abdominal carcinoma.

3. The heart muscle doubtless becomes flabby like the skeletal muscles in cancer cases.

4. The small feeble pulse suggests an imperfectly filled vascular system.

In recumbency such a heart should tend to drop back unduly from the anterior chest wall and allow such lungs to overlap it.

Sites of Secondary Growths.

Certain sites of secondary growths are worth remembering as influencing diagnosis: 50 per cent. occur in the liver, 35 per cent. in the peritoneum and omentum, 19 per cent. in the pancreas, and about 10 per cent. in the lungs and pleura. Consequently we find, sooner or later, *jaundice* in about 15 per cent. of the cases, *ascites* in about 25 per cent., and *pleural effusion* in about 10 per cent. The secondary affections which chiefly tend to mask the primary cancer are cancer of the liver and ascites. About 25 per cent. of cases of liver cancer are secondary to stomach cancer, and gastric cancer is perhaps the commonest cause of peritoneal cancer.

Other secondary growths, occasionally useful in diagnosis, are *skin nodules*, like small tabloids freely movable under the skin. These when microscoped give the diagnosis of cancer, but when very small, unless most carefully examined, may be mistaken for mere lymphoid tissue. *Growth in bone* may be thought to be "rheumatism"; here the x rays can clear up the diagnosis; but bone secondaries are not nearly so common in gastric cancer as in prostatic cancer.

Complications.

The occurrence of certain complications not already dealt with must be borne in mind, in order to avoid the mistakes which their presence might cause, such as: *General peritonitis*, which occurs in about 3 per cent. of the cases and has been recorded as the first indication of the cancer. A *gastric perforation* into the general peritoneal cavity is a rare event. *Perigastric abscess* also occurs in about 3 per cent., and may be subphrenic, epigastric, hypochondriac, or umbilical. *Gastric fistula* is found in less than 3 per cent. of the cases, usually between stomach and transverse colon, extremely rarely between stomach and small bowel or skin. *Nephritis* may coexist or arise in the course of the disease. *Pneumonia* is an occasional cause of death (6 per cent.). *Melancholia*, which may be suicidal, occurs rarely. *Cerebral* or *spinal symptoms* arise in about 1 per cent. of the cases. *Tetany*, *purpura*, and *septicaemia* are all extremely rare. *Phthisis* may coexist, though very seldom, a fact worth remembering. Extension of growth may, in rare cases, set up *abscesses in liver, spleen, or kidney*.

SOME DISEASES WHICH SIMULATE CANCER.

Non-cancerous causes of loss of flesh have been already referred to. Blood diseases, such as pernicious anaemia, the anaemia of ankylostomiasis, and leucocythaemia, can only be confused with malignant disease by a careless investigator. The commonest difficulties seem to arise in connexion with chronic gastritis, gastric and duodenal ulcer or their sequels, hepatic cirrhosis, gastralgia. I will take these in order. The points already dealt with I shall repeat as little as possible.

Chronic Gastritis.—It is from chronic gastritis that the diagnosis has most often to be made, and it is often very difficult in the early stages. Under 30, unless there were a gastric tumour, cancer would not be thought of. But over 40 it should always be thought of, when gastric symptoms arise for the first time. I cannot too strongly

urge the value of the "cardiac sign" in these cases, and of the necessity for the search for "occult blood," and for x-ray investigation.

Gastric or Duodenal Ulcer or their Sequels.—Apart from the uncommon cases in which cancer supervenes in ulcer, there is usually less difficulty here than with chronic gastritis; for cancer is rare at the earlier ages when ulcer is most common. The duration of ulcer is often much longer than that of cancer, and the symptoms tend to disappear and to recur. Pain in ulcer is usually more severe than in cancer, but less continuous, more aggravated by food, more relieved by vomiting. Appetite in ulcer generally remains good, although the patient may refrain from eating for fear of causing pain. Tenderness over the lesion is apt to be greater in ulcer, although it is a mistake to say (as has been said) that there is no tenderness over a cancer. Vomiting in ulcer is commoner and more regularly associated with meals; and haematemesis is more often profuse and occasional, with perhaps a history of similar haemorrhages some years before. The tumour of an old ulcer may increase the difficulty, and it is important to remember that, even at operation, the nature of the mass may only be determinable by microscopy of an excised portion. I remember a case of another inflammation (not irrelevant) of the pancreas where, at operation, an able surgeon thought we had made a mistake in diagnosis, so firm was the mass found and so extensive, but the microscope showed only chronic inflammation, and the recovery of the patient confirmed the microscopy. Except in late and long-lasting cases of ulcer the weakness and wasting are not comparable to those of cancer. Special difficulty arises in cases where cancer has supervened on ulcer, because then the test meal shows a normal or excessive proportion of free hydrochloric acid, as in ordinary ulcer. It should be borne in mind that duodenal cancer is very rare. In some of these cases the x rays render valuable service. Sometimes exploratory operation is indicated, even apart from the question of possible malignancy, as in hour-glass stomach, pyloric stenosis, etc.

Hepatic Cirrhosis.—It is sometimes difficult to distinguish the haematemesis of hepatic cirrhosis from that of gastric cancer, and where jaundice or ascites or both coexist the difficulty is increased. The history helps, when we can get it. The sallow facies of cirrhosis, with venous varicosities, are different from the anaemia and thinness of cancer. But there is often wasting in cirrhosis, and cirrhosis may exist without a characteristic facies. The spleen is often enlarged and can be felt in cirrhosis, whereas in cancer the spleen, unless it is involved in the growth (which is rare), cannot be felt. Haematemesis in cirrhosis is apt to be profuse and "coffee-ground," and to occur when there is no loss of flesh. The appearance of toxæmia, such as occurs in hepatic cirrhosis, may decide in favour of cirrhosis. "Hepatic deficiency tests" do not seem to be of much service at present.

Gastralgia.—This should only be diagnosed when organic disease has been most carefully excluded. I cannot recall a case in which it has caused difficulty, but it is mentioned by others, so I refer to it.

Some Other Tumours.

Cancer of the Colon.—History, symptoms, and x-ray examination should make the diagnosis plain. Also the direction of visible peristalsis, when present, should distinguish. I remember a case, seen many years ago, before the advent of the x rays, in which visible peristalsis from left to right led me to diagnose gastric cancer, but where the surgeon, summoned from a distance, operated for a colonic growth and found himself wrong.

Cancer of the Head of the Pancreas.—Here we have to guide us a fixed tumour (if it be palpable), rapid wasting, white stools without jaundice, or jaundice with enlargement of the gall-bladder, together with the diastase reaction, results of estimation of faecal fat and its character, the copious stools, and the microscopical finding in the motions of still striated muscle fibres. It would be also worth looking for possible sugar in the urine (unusual), and to use Cammidge's test and Loewi's test (adrenaline dropped into the eye).

Tumour of the Omentum.—A pyloric cancer may simulate this. As I have pointed out in another paper,⁵ the commonness of pyloric cancer as compared with the rarity of omental cancer will help us. But the x rays should be our best guide to a certain diagnosis. The same means of examination should distinguish pyloric cancer from the rather large list of tumours of other organs, which it may simulate in its surprising variety of location in the abdomen.

Simple Gastric Tumour.—When such is clinically discoverable exploratory incision will be necessary and will decide.

Hair-ball in the Stomach.—This is a possibility not to be forgotten in a hysterical person, and we should ask for a history of hair-swallowing.

Faeces in the Colon.—Faeces in the colon may closely simulate a gastric tumour. If the mass can be unmistakably indented with the finger (very rare) then the presence of faeces cannot be doubted, but it is well to remember in such a case that there may also be a growth in the colon causing the faecal obstruction. Generally we must rely on the use of aperients and enemata, together with the x rays, to arrive at our diagnosis.

Aneurysm.—Error is easier to make than one might imagine. Expansile pulsation, if found, is distinctive. The x rays may decide.

Gumma.—The main thing is to remember it. I have diagnosed such a tumour and watched it disappear under iodide and mercury.

IN CONCLUSION.

Four points must never be forgotten in dealing with a case of possible gastric cancer—namely:

1. "It is never justifiable to open the abdomen as the sole means of making a diagnosis" (Walton).⁶
2. It is never justifiable to refrain from advising laparotomy when there is reasonable hope of successful radical removal if the general health permits.
3. The diagnosis must be arrived at by a joint use of clinical, radiological, pathological, and, if necessary, surgical means. And the greatest of these are the clinical, because they are the earliest to suggest.
4. "Dyspepsia" is not a diagnosis.

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THE SCOPE OF CAESAREAN SECTION.

AN ANALYSIS OF 295 CASES OF THE CLASSICAL OPERATION.*

BY

FRANCES IVENS, M.S.LOND.

CLINICAL LECTURER IN OBSTETRICS AND GYNAECOLOGY, UNIVERSITY OF LIVERPOOL.

The scope of Caesarean section is a subject of considerable importance; it is one which it might be probable to discuss, and about which there is some diversity of opinion.

We know that in a certain percentage of cases natural delivery resulting in the birth of a living child is an impossibility, and numerous expedients have been introduced to deal with such cases, none of them absolutely satisfactory or entirely free from danger. The induction of premature labour, prophylactic version, symphysiotomy and pubiotomy, high forceps delivery, all have or have had a vogue, and have been, in skilled hands, more or less successful. Each method, however, presents certain disadvantages. The induction of premature labour, if em-

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