ผสมผสานเรื่องแผลในกระเพาะอาหาร และดูโอดีนั่ม

รวบรวมโดย เฉลี่ย วัชรพุกก์

Jejunal ulcer (Gastro-jejunal ulcer.)

In our experience, about 60% of the recurrences took place in the first three years after gastrectomy for duodenal ulcer. That is the dangerous period.

Most jejunal ulcers occurred in patients who had had duodenal ulcers, rarely in those who had had gastric ulcers.

It is the consensus today that the average incidence of jejunal ulcer after resection is about 15-20%

First symptom of jejunal ulcer is *haemorrhage.*

Marshall series—bleeding for the first symptom 43%

Gordon-Taylor series—bleeding for the first symptom 50%

(Bleeding from duodenal ulcer—20%—Marshall.)

The incidence of recurrent ulcer is high when the antrum has been allowed to remain in situ.

Samuel F. Marshall.
Lahey Clinic, Boston.

Gastric ulcer from the Radiologist's point of view.

It is the consensus among röntgenologists that *primary gastric ulcers are benign and always remain benign,* that they do not undergo malignant degeneration. A large majority occur on the lesser curvature and are represented röntgenographically by a niche.

Malignant ulcers arise primarily as tumours, which later undergo ulceration. The ulcer is usually eccentric and assymetric. The edges are thickened and indurated, and the adjacent rugae are obliterated by the infiltrating carcinoma. Such an infiltrative border may give rise to a *meniscus sign* (described by Carman). Kirklin has pointed out that to be a true meniscus sign the lesion must be entirely intra luminal.

Radiologists have been struck with the fact that gastric ulcers occur almost enclusively on the lesser curvatures of the stomachs of the *hypotonus type*—those which in the upright position, sag down into the lower abdomen. *Hypertonic or "steer horn" stomachs* are almost universally free from gastric (not duodenal) ulcers.

Leroy R. Sante.
Professor of Radiology.
St. Louis University School of Medicine.

Test for Gastric ulcer only 2-3 weeks old.

The most reliable test for assaying the malignant or benign character of an ulcer is to observe its behavior for a brief period of time of *two or three weeks,* by having *absolute bed rest, without alkalization, special medication or* diet

without alkalization, special medication or diet and merely giving unrestricted amounts of nourishing food. The patient will in a great majority of instances, be relieved of pain within a few days and his *benign ulcer crater will show spontaneous healing.* A carcinomatous ulcer will not show any indication of regression but may even get larger in size with conservative treatment.

Leroy. R. Sante.

Duodenal ulcer

Criteria for Intractable or progressive or virulent duodenal ulcer.

1. Primary criteria

a. One perforation in the past, with present ulcer symptoms.

b. One acute *haemorrhage* requiring blood transfusion.

c. Progressive pain over a two year period with the patient working and under a physician's care and following his advice.

2. *Secondary Criteria*

a. A male patient with duodenal ulcer symptoms and under a physician's care.

b. A male patient with onset of symptoms prior to the age of 20 years or subsequent to the age of 65.

If two of these criteria, at least one of which must be primary, are present, the diagnosis of progressive virulent ulcer disease may be considered established, and the outlook for nonsurgical management is poor. If three of these criteria are present, surgery should be urged.

Moore, et al.

(*after examining the records of about* 1,000 *cases of duodenal ulcer at the Massachusetts General Hospital*)

ปัญหาเรื่องการทำผ่าตัดในคนไข้ที่เป็นโรค Chronic duodenal ulcer

Crile's operation (vagotomy and gastroenterostomy) - his figures of about 7% recurrence but under 0.5% mortality, fully justified the continued use of this operation in specially hazardous cases. Since we instituted our present policy, we have reserved vagotomy plus gastroenterostomy for duodenal ulcer patients in whom, on account of obesity and emphysema, or old age, for example, gastrectomy might have been unduly dangerous. "*Better a live patient with recurrence than a dead one without*"

Johnson, et al.

(*Selective Surgery for peptic ulcer.*)

Sunrg. Gynae & Obstetric vol. 98, *April* 1954

Gastric ulcer & Duodenal ulcer

The location of the ulcer has little bearing on whether the ulcer is benign or malignant except with possibly *one type of ulcer that occurs on the greater curvature.* We always operate on any patient with an ulcer involving the greater curvature because *almost* 100 % *of them have proved to be malignant.*

Over a 20 year period at the Lahey Clinic, we have seen about 16,000 patients with peptic ulcers. About 10 per cent were subjected to operation. *This leaves a large group of patients,* 90 % *who can be handled satisfactorily with good medical measures.*

Samuel F. Marshall.
Lahey Clinic, Boston.

Gastric ulcer

Benign and Malignant characteristics

Kirklin has outlined the conditions influencing the benign or malignant characteristics of gastric ulcers as follows:

An ulcer may be considered as probably benign when

1. The duration of the symptom is 10 years or more.

2. The patient's age is 30 years or less.

3. There is a free hydrochloric acid determination of 40 or more.

4. At röntgenologic examination the ulceration goes through the wall

5. The lesion is found at röntgenologic examination on the lesser curvature.

6. The crater of the ulcer measures 2 cm. or less.

7. The stomach is of the "B" type.

8. The biologic test shows reduction of size of the crater under medical treatment.

An ulcer may be considered as probably malignant when.

1. The symptoms are of recent onset.

2. In an elderly patient.

3. There is an achylia.

4. At röntgen examination the ulcer is irregular in outline, especially if it shows a meniscus sign.

5. The lesion is located in the prepyloric, region, posterior wall, or greater curvature.

6. The crater is 2.5 cm. or more in size.

7. The biologic test shows no healing of the ulcer under proper medical treatment.

B.R. Kirklin

Hampton's method for locating the site of bleeding peptic ulcer.

1. Patient in horizontal position.

2. X-rays in profile, relief and double contrast examination of esophagus, posterior wall of the stomach, pyloric valve and posterior wall of duodenum.

3. Without compression or manipulation.

Pollard & Wollum
J.A.M.A. (*Jan.* 6 1951.)

Bleeding peptic ulcer.

1. Massive haemorrhage in older age groups is accompanied by a much higher mortality rate.

2. Hematemesis is more significant than melena, meaning sudden and massive expulsion of blood into the upper G.I. tract.

3. Recurrent bleeding while the patient is still in the hospital under observation is very serious.

4. The prognosis is more serious if additional disease is present (portal cirrhosis, essential hypertension or cardiac failure.)

A.H. Aaron, et al.
J.A.M.A. (*Jan.* 6, 1951)

The higher mortality rate from bleeding gastric ulcer than from bleeding duodenal ulcer (often a ratio of 2 to 1.)

The higher mortality rate from bleeding peptic ulcer in men as compared with women (2 to 1.)

The highest mortality rate was in those patients having symptoms of ulcer but negative X-rays findings.

The most deaths from bleeding ulcers occurred with the *first haemorrhage*. The mortality rate was lower with succeeding haemorrhages.

Practical Biochemical Methods in Bedside Diagnosis

รวบรวมโดย..... Chalia Vajrabukka M.D.

การวินิจฉัยโรคที่ถูกต้องและรวดเร็วนั้น เป็นของจำเป็นอย่างยิ่งในโรคบางอย่าง เราอาจจะวินิจฉัยโรคได้รวดเร็วและถูกต้อง โดยไม่ต้องการ ช่วยเหลือทาง ปฏิบัติการ ทาง ห้องทดลอง คือการตรวจเลือด, ปัสสาวะ หรืออุจจาระก็ดี ทั้งนี้หมายถึงโรคที่เป็นอย่างรวดเร็ว และมาหาแพทย์ในเวลากลางคืน เช่น เลือดกำเดาออก, strangulated hernia, asthma, incomplete abortion, intestinal obstruction จาก Cancer of rectum (ที่คลำได้) หรือจาก Impacted feces ในเด็กๆ ที่ rectum, โรค acute retention of urine ในเด็ก เช่น Impacted stone ใน urethra, phimosis. พวกกระดูกแขนหรือขาหัก เป็นต้น พวกที่กล่าวมาแล้วนี้แพทย์สามารถทำการรักษาได้รวดเร็ว โดยไม่ต้องคอยการช่วยเหลือทาง ห้องปฏิบัติการ เลยก็ว่าได้ ไม่ว่าจะเป็นเวลากลางวันหรือกลางคืนดึกดื่นแค่ไหน แต่มีโรคที่พบเสมอที่เป็นอย่างปัจจุบัน และแพทย์ต้องโดนปลุกจากที่นอนในเวลาดึกๆ ลุกขึ้นมาตรวจ เช่น การปวดท้องซึ่งในบางรายก็เป็นปัญหาที่จะต้องตรวจกันให้ละเอียด โดยการใช้ห้องทดลองเพื่อให้แน่ใจ เช่น การจะวินิจฉัยโรคแยกจาก Acute appendicitis จาก renal colic เป็นต้น เราจำเป็นตรวจเลือด, ตรวจปัสสาวะเสียก่อน พวกแผลกะเพาะอาหารทะลุก็เป็นโรคหนึ่งที่สมควรจะต้องได้รับการตรวจให้แน่นอน เพราะมีโรค acute pancreatitis, acute cholecystitis ที่มีอาการคล้ายๆกันมาก และทำให้การตัดสินใจของศัลย-แพทย์สับสน และกังวลใจอย่างมาก ในขณะที่คนไข้กำลังทรมานโดยการเจ็บปวดในท้องอย่างแสนสาหัส พร้อมทั้งญาติพี่น้องของคนไข้ที่คอยรุมถามว่า จะทำผ่าตัดหรือไม่ และสิ่งที่ช่วยการตัดสินใจของศัลยแพทย์นั้นไม่ใช่อยู่ที่ blood count หรือ urine examination เท่านั้น แต่ควรจะมี x-rays ด้วย เพื่อดู air bubble ใต้กระบังลมด้านขวา ว่ามีหรือไม่ ถ้ามี air ก็เชื่อว่าเป็นแผลกะเพาะอาหารทะลุมากกว่า ดราวนี้ถ้า x-rays ถ่ายแล้วไม่สามารถจะช่วยบอกอะไรเราได้ ก็จำเป็นอยู่เอง ถ้าเราหาวิธีอะไรก็ได้ที่ใช้เครื่องมือให้น้อยที่สุด, จำเป็นที่สุด, ให้รวดเร็วที่สุด และทำได้ทุกๆเวลา โดยแพทย์ประจำบ้านอ่านผล เฉพาะอย่างยิ่งในรายที่เป็น acute pancreatitis การหา serum amylase เป็นของจำเป็นมาก ที่สามารถ จะช่วยให้เรา แยก จากแผลกะเพาะอาหารทะลุได้ เพราะการรักษามันตรงกันข้ามทีเดียว เพราะในรายแผลกะเพาะอาหารทะลุเราต้องเปิดท้องคนไข้ แต่ถ้าเป็น acute pancreatitis เราไม่ทำผ่าตัดเป็นต้น. ดังนั้นการหา Biochemical test ที่เรียกว่า "ย่อส่วน รวดเร็ว และทำโดยแพทย์ประจำบ้าน" สมควรที่จะมีไว้ใกล้มือเสมอ เฉพาะอย่างยิ่งในเวลากลางคืน ดังนั้นในอันดับแรกจึงเสนอการหา amylase ใน serum มา และจะพยายามไปค้นมาเสนอผู้อ่านต่อไปอีก

เฉพาะอย่างยิ่งที่แพทย์ตามโรงพยาบาลต่างจังหวัด ไม่มีห้องทดลองในการตรวจชิ้นเคมีที่ครบถ้วน อาจจะใช้วิธีตรวจอย่างแบบนี้ก็อาจจะสะดวก และใช้ได้ผลดี เพราะไม่ต้องการความชำนาญเท่าใด และไม่ต้องการเครื่องมือในการ ตรวจ มากเท่ากับ การตรวจเหมือน

ในห้องปฏิบัติการใหญ่ บางทีเขาเรียกแบบ ultramicrochemical method ซึ่งจะต่างกับ ultramacrochemical method แต่ถ้าโรงพยาบาลใหญ่ที่มีพร้อมมูลก็ควรจะทำทั้งสองอย่าง เพื่อเปรียบเทียบผลที่ได้ เพื่อความแน่นอนอีกชั้นหนึ่ง.

A RAPID SERUM AMYLASE TEST

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Since it is generally accepted that surgical intervention is a hazardous procedure during an attack of acute pancreatitis, a simple rapid serum amylase test should be of great clinical value. A high serum amylase differentiates this condition from other acute upper abdominal diseases that may require emergency surgical treatment and determines decisively the course of therapy. The Somogyi method for serum amylase, used in most institutions, is relatively simple and needs no more laboratory facilities than are required for a blood sugar determination; however, in many hospitals the services of an experienced technician to do this test are not conveniently available at night, during weekends, or on holidays. To meet this need, we have developed a new method; this procedure can be performed by any member of the resident staff of a hospital in 10 minutes, with a minimum of clinical apparatus (test tubes; a pipet, to deliver 0.1 ml., calibrations of 0.01 ml., three dropping bottles, 50 ml. capacity; and a water bath.) A minute amount of starch is incubated with serum for five minutes. A normal concentration of amylase will leave some of the starch undigested and give a blue color with iodine. A high serum amylase will gigest all the starch, and the addition of iodine will give only the yellow color of iodine.

REAGENTS

Iodine Reagent:- A stock solution of 0.1 N iodine in potassium iodine is prepared (1.27 gm. iodine and 3.32 gm. potassium iodine in 100 ml. water.) To 25 ml. of stock solution, 17 ml. of concentrate hydrochloric acid and water to make 100 ml. are added. This gives a solution of 0.025 N iodine in 2 N hydrochloric acid. This reagent is kept in a brown dropping bottle and is stable for several months if refrigerated. The concentration of free iodine increases on standing, and when the reagent darkens it should be discarded.

Buffered Saline:- Phosphate buffer, pH 6.8 (potassium dihydrogen phosphate, 4.54 gm., and disodium acid phosphate, 4.735 gm., in 200 ml. water), 20 ml. is diluted to 100 ml. with isotonic sodium chloride solution. This reagent is also kept in a dropping bottle.

Starch Solution:- Soluble starch, 100 mg. (Merck), or special starch, 120 mg. (Takamine), is weighed accurately and transferred to a small beaker. A few drops of distilled water are added, and a paste is made. To this is added about 40 ml. of boiling water, and the starch is dissolved completely. This is quantitatively transferred to a 100 ml. volumetric flask, and the beaker is rinsed with another portion of boiling water, which is also added of the flask. A few milligrams of *water-soluble white thimerosal* (Merthiolate) is added as a preservative. When the solution is cool, it is diluted to 100 ml. and mixed thoroughly; it must be kept in the refrigerator and discarded after two weeks.

It is desirable to add the starch to the serum rapidly. This is accomplished by using a dropper (dropping bottle) that is calibrated to deliver 0.25 ml. in a known number of drops. The calibration is made by delivering with the dropper 60 drops of the starch solution into a 10 ml. dry graduated cylinder to be calibrated. The volume is read, and the number of drops

required to give 0.25 ml. is found by dividing 60 by 4 times the volume (in milliliters). Generally five or six drops are required. The soluble starches available vary in their average chain length and water content. Merck's soluble starch gives satisfactory results if 1 mg. per milliliter is used. Takamine special starch give the most sensitive results (1.2 mg. per milliliter). Variations in the test are usually due to errors in weighing the starch, which may pick up excessive water on exposure to the air. The label of the starch solution should bear the date when the solution was made up, since after two weeks it becomes unreliable.

PROCEDURE

The serum (0.1 ml.) is pipetted into the bottom of a small test tube; to this is added four drops of buffered saline; the tube is placed in an incubator or water bath at 40 C (104 F) and allowed to come to bath temperature. The starch solution (0.25 ml., five or six drops) is added rapidly, and the tube is swirled gently and returned to the bath. In exactly five minutes from the time of addition of the starch, one drop of iodine reagent is added; the color is read after a few seconds. Blue to green indicates a normal amount of serum amylase and is comparable to up to 200 Somogyi units per 100 cc., Largerlof's method. Light green to amber is a questionable reaction and corresponds to 200 to 350 units per 100 cc. If the test, made with 0.1 ml. of serum, results in a yellow color the patient has an elevated serum amylase, comparable to 350 units or higher. To estimate the abnormal concentration of serum amylase more closely, the test may be repeated with 0.05 ml. of serum with five drops of buffered saline. With 0.05 ml. of serum, blue to green corresponds to 350 to 500 Somogyi units, Largerlof's method. Orange to amber corresponds to 500 to 750 units. Straw color corresponds to 750 units or higher. When this method is first set up, the results should be checked by the Somogyi 1 or Largerlof 2 method to defect divergences.

RESULTS

Eight hundred serum amylase tests were carried out during the past two years. Each test was checked against the routine method used in this laboratory (Largerlof's method, results expressed in Somogyi units 3): the corelation was found to be satisfactory. The test was found of value by our resident staff, to whom the reagents kept in our refrigerator were constantly available. The test was repeatedly useful in making quick diagnoses in cases simulating acute cholecystitis, perforated ulcer, or acute intestinal obstruction. When the color of the reaction for a patient with an acute abdominal condition was in the equivocal zone, that is, between blue-green and yellow, other factors in the clinical picture were considered to be more important; however, when the reaction color was yellow, and especially when the same reaction was produced with 0.05 ml. of serum, the diagnosis of acute pancreatitis was considered to be definite.

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