

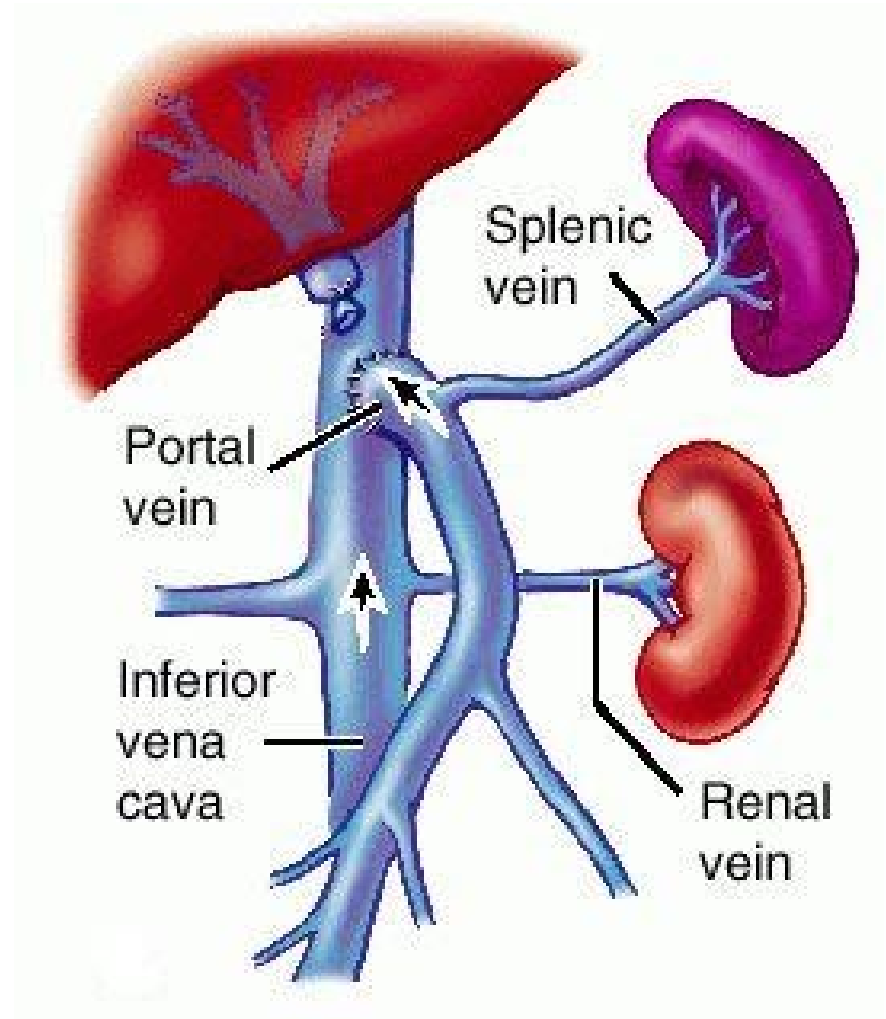
The Northern Irish surgeon who revolutionized the treatment of Esophageal Varices

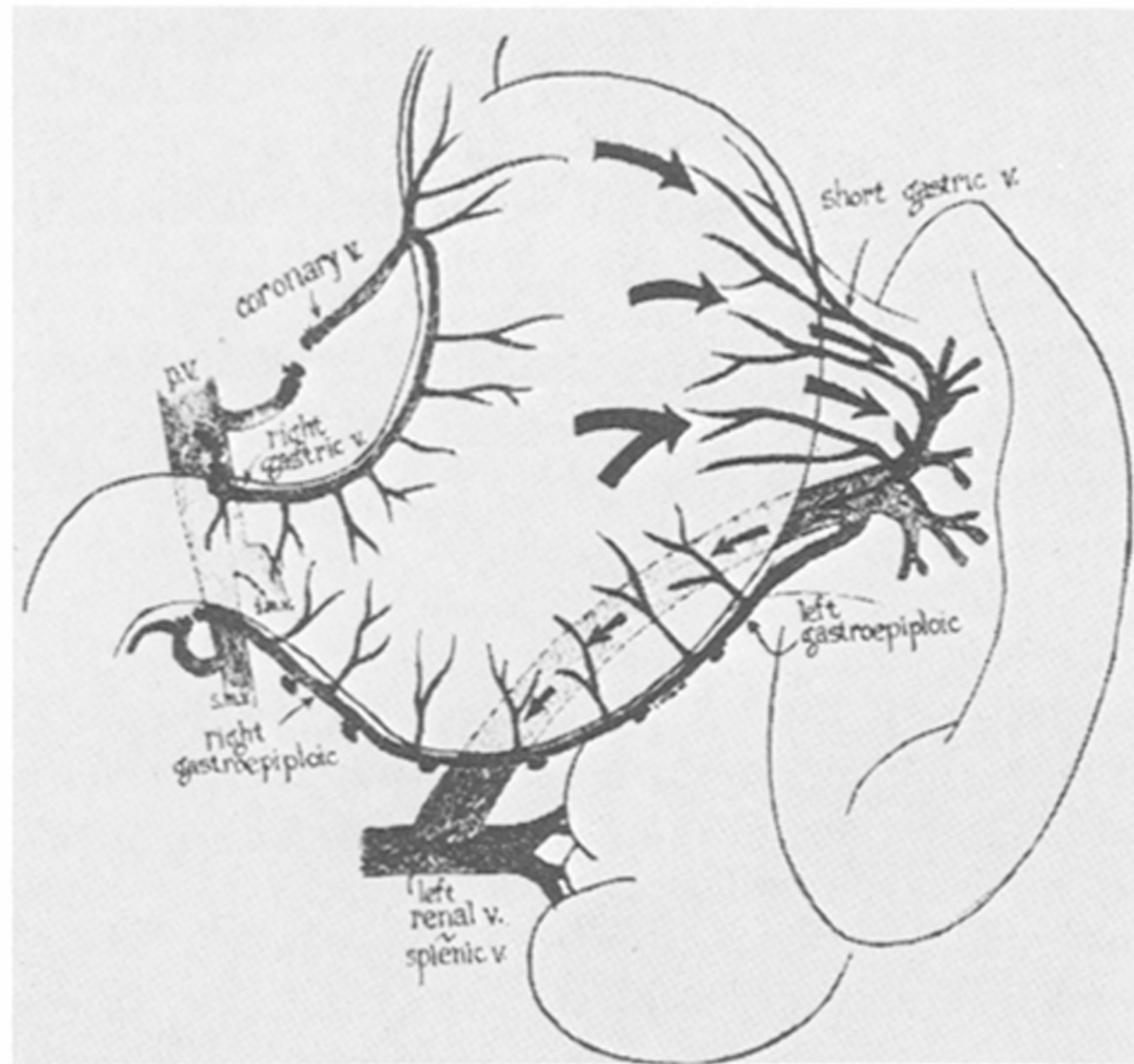
Peter F Crookes MD FACS
Queen's University Belfast
Emeritus Professor of Surgery,
Keck School of Medicine at USC

THEN (1930s-1970s)

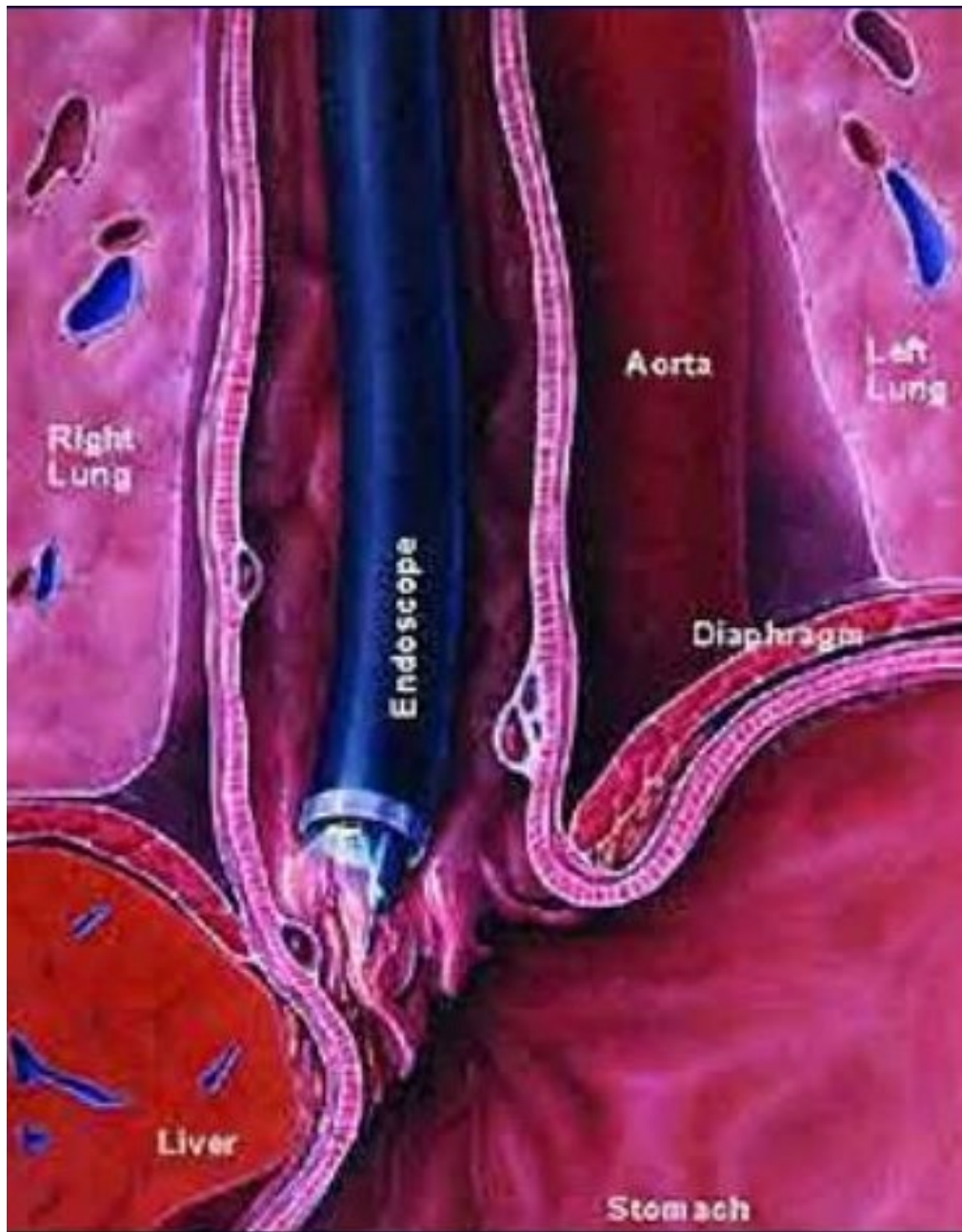


THEN (1930s-1970s)

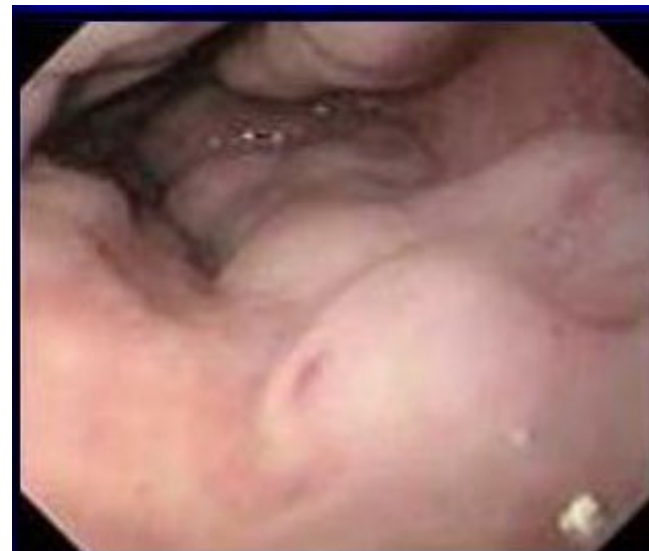




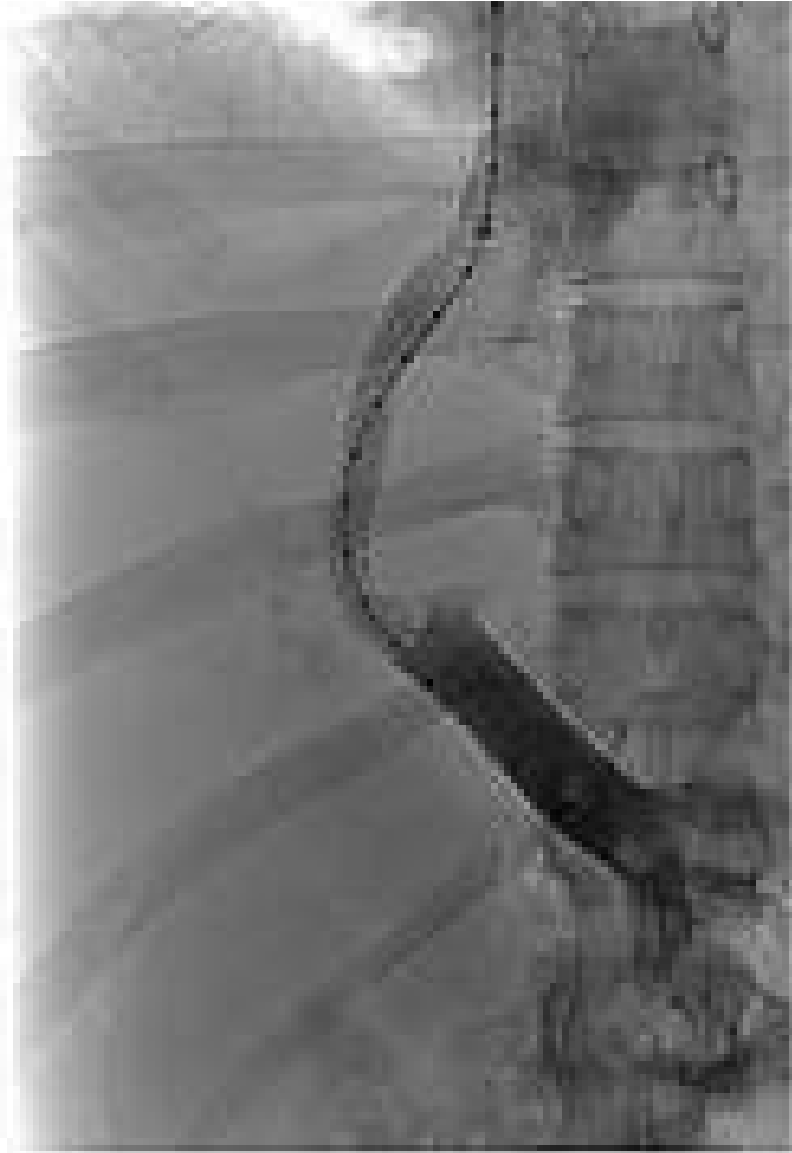
From Warren et al 1967



NOW



NOW



One important step in that transition.....







NORTHERN-IRELAND

IRELAND



Londonderry

Strabane

Sperrin Mts.

Omagh

Dungannon

Portadown

Randalstown

Ballymena

Antrim

Lisburn

★ Belfast

Bangor

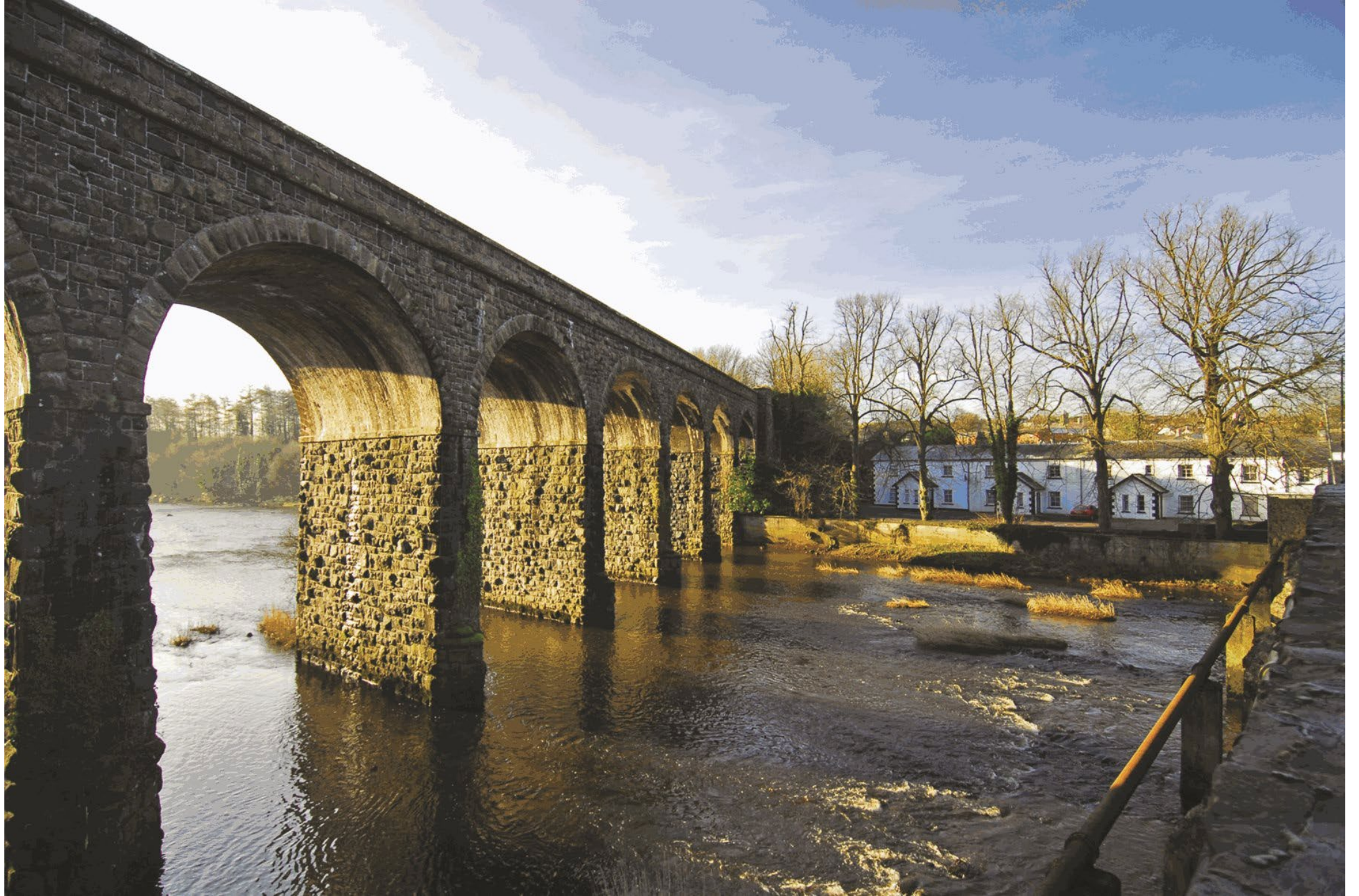
Carrickfergus

Larne

Mts.

NORTHERN-IRELAND

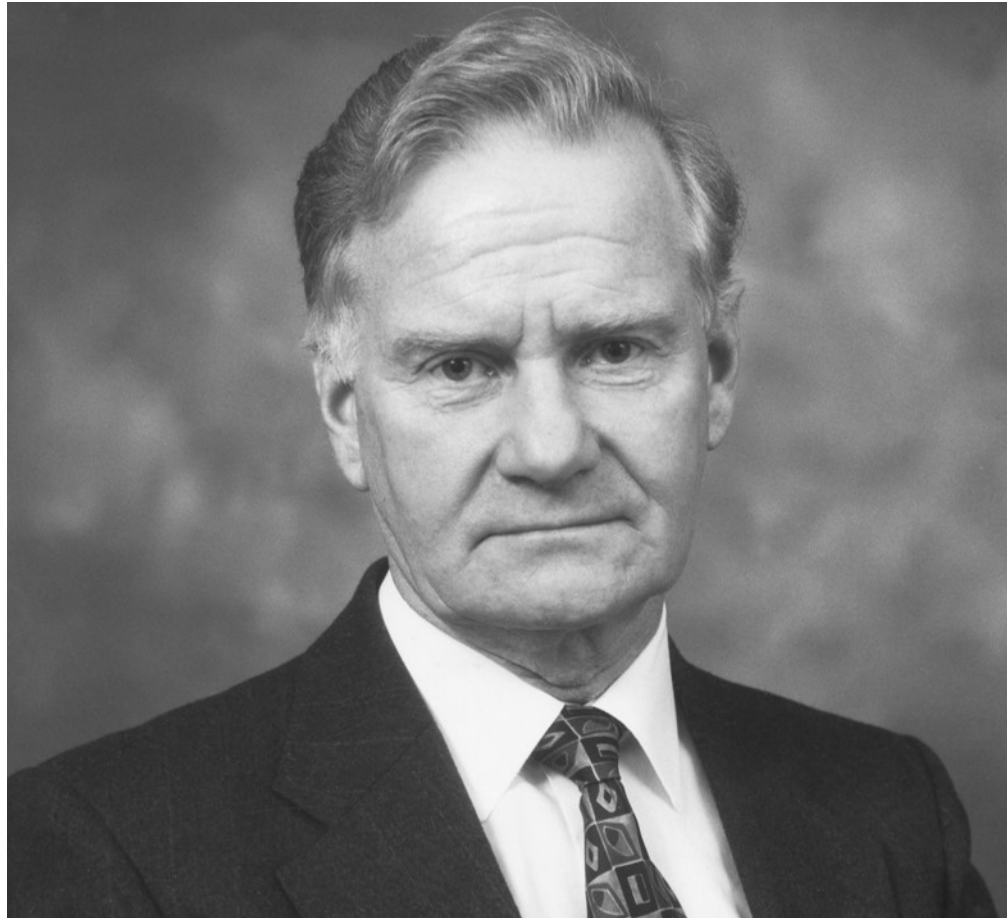
Lough Neagh





George Weir Johnston

born 1932





Always knew he wanted to be a doctor

Question: Why?

“Because the doctor drives a really nice car”

This decision made at age 4

Entered medical school aged 18 on a full scholarship

Path to surgery

Honors graduate, top student in the graduating class

Rotations in Pediatrics and Ob/GYN after internship

Intended to be a GP

Offered prelim intern slot in family practice in Middletown, CT

Middletown, CT



Entered Surgical Training on return

- Royal Victoria Hospital – primary referral center for the new National Health Service
- Involved in research studying Portal Hypertension in the lab of Professor Harold Rogers
- Doctoral Dissertation on Hepatic Encephalopathy
- After 2 years on the academic service, appointed as Attending in a surgical unit in the Royal Victoria Hospital







Major GI Bleeding in late 1950s and 1960s

Primarily a Surgical problem

No flexible endoscopy or Interventional Radiology

No PPIs or even H₂RA

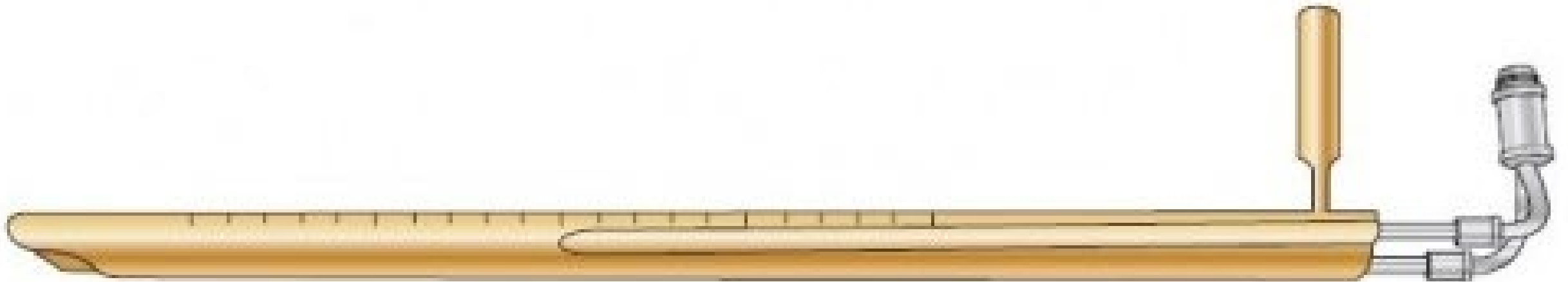
Major sources of mortality from upper GI bleeding

Duodenal Ulcer

Esophageal Varices

Alcoholism was a huge social problem in Ireland

Rigid Esophagoscope





In retrospect: some solutions appear wacky

SUBTOTAL ESOPHAGECTOMY FOR BLEEDING ESOPHAGEAL VARICES

DENTON A. COOLEY, M.D.

AND

MICHAEL E. DeBAKEY, M.D.

HOUSTON, TEXAS

ALTHOUGH definite progress has been made in the management of patients with portal hypertension, control of hemorrhage from esophageal varices in such cases remains a challenge to the medical profession. Varices appear in the mucosa of the lower esophagus as evidence of portal hypertension in a significant percentage of such cases, whether the portal obstruction is intrahepatic or extrahepatic. Hemorrhage from the esophageal venous plexus may assume massive proportions, leading to fatal exsanguination, or result in repeated episodes of less severe bleeding, leading to chronic invalidism and secondary anemia. Esophageal varices are most frequently associated with portal cirrhosis. Eppinger¹⁵ estimated that about 20% of patients with cirrhosis of the liver die of hemorrhage before

“extensive Subtotal Gastrectomy”

The Canadian Medical Association Journal

Vol. 53

TORONTO, OCTOBER, 1945

No. 4

THE ULCER PROBLEM*

(I) Etiology, with Special Reference to an Inter-relationship Between the Vascular and the Acid-Peptic Digestive Factors.

(II) Characterization of a Satisfactory Operation Which Will Protect Against Recurrent Ulcer.

By Owen H. Wangensteen, M.D.

Minneapolis, Minn.

IT is indeed a rare privilege to be asked to give one of the triennial lectures of your Association commemorating Lister, easily first amongst all surgeons of all time. My sense of genuine appreciation of this high honour is marred not alone by the knowledge that this compliment is ill-deserved, but also by serious personal misgivings over being able to bring something to you suitable to the occasion.

Pope once said: “His praise is lost who waits

that we resign ourselves to the piety of memory, renew acquaintance with his ideals and reflect for a moment upon the arduous labours and glory of this great and good man. We need the example of men like Lister more than they need our praise. On the occasion of the Lister commemoration, it is fitting that we rededicate ourselves to the noble tasks which he so greatly advanced.

Accompanying publication of the first Listerian Oration by your own late John Stewart, of Halifax, the Lister Memorial Club of your Association made this announcement: “The first Listerian Oration published herewith is very properly concerned with the life and work of Lord Lister himself; subsequent orations may draw not only upon the various items associated with Lister’s life, but may include also the story of all great and important advances in scientific surgery and medicine”. I hesitate to be the first to break with the tradition of dealing with

TREATMENT OF OESOPHAGEAL VARICES IN PORTAL HYPERTENSION BY MEANS OF SCLEROSING INJECTIONS*

BY

RONALD MACBETH, D.M., F.R.C.S., F.R.C.S.Ed.
Clinical Lecturer in Otolaryngology, University of Oxford

In 1949 I briefly described a method of treating oesophageal varices by sclerosing injections based upon nine cases (Macbeth, 1951). The purpose of the present communication is to describe further experience with the method in a total series of 30 cases, and to attempt to justify its use as a valuable means of treatment in patients suffering from portal hypertension.

Portal Hypertension

This term, coined by McMichael in 1932, is descriptive of an increase of pressure within the portal venous system. It may be intrinsic by reason of fibrosis of the liver, or extrinsic because of thrombosis of the portal vein or of one of its main tributaries.

The portal system anastomoses with systemic veins at a number of points, but the lower end of the oesophagus and the cardiac end of the stomach provide a site where back-pressure from the portal side is peculiarly apt to

veins traverse the muscular coats and join the extrinsic veins. At this point of junction they are guarded by valves which direct the blood outwards.

The venae comitantes of the vagal nerves run longitudinally and link the left gastric vein directly or indirectly with the azygos system.

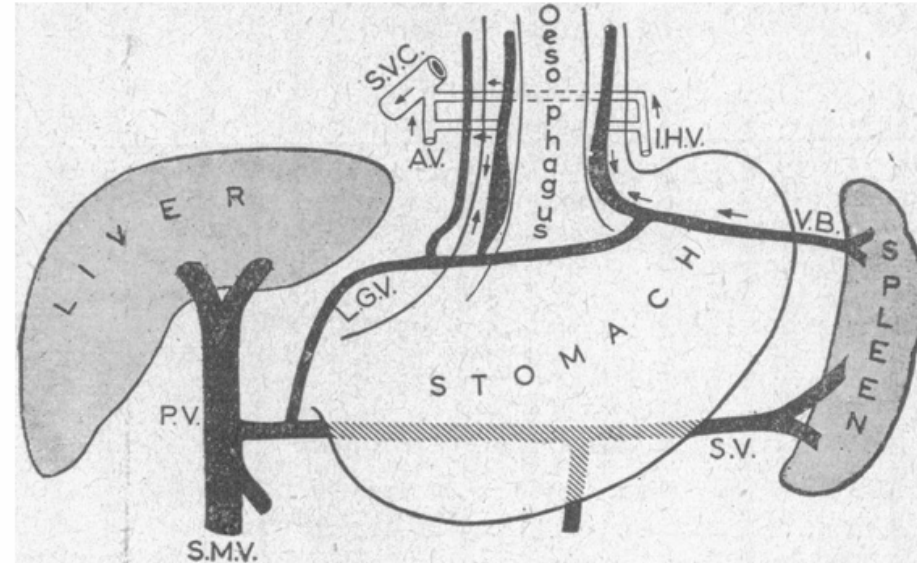


FIG. 1.—Schematic representation of portal system and anastomosis at oesophago-gastric junction (adapted from Learmonth). P.V.=Portal vein. S.M.V.=Superior mesenteric vein. L.G.V.=Left gastric vein. A.V.=Azygos vein. S.V.C.=Superior vena cava. I.H.V.=Inferior hemiazygos vein. V.B.=Vasa brevia. S.V.=Splenic vein.

The extrinsic veins drain into the systemic veins except in the abdomen, where three or four join the left gastric vein.

There are, therefore, three routes in this area whereby portal blood may reach systemic veins.

Butler states that any or all of the veins of the area

A REVIEW OF 15 YEARS' EXPERIENCE IN THE USE OF SCLEROTHERAPY IN THE CONTROL OF ACUTE HAEMORRHAGE FROM OESOPHAGEAL VARICES

BY GEORGE W. JOHNSTON AND HAROLD W. RODGERS

ROYAL VICTORIA HOSPITAL, BELFAST

SUMMARY

The results of 15 years of sclerotherapy for acute variceal haemorrhage are reviewed retrospectively. One hundred and seventeen patients with portal hypertension received a total of 217 injections. Haemorrhage was controlled in 93 per cent of admissions. The mortality per injection was under 12 per cent, and the total admission mortality was 18 per cent. Even where a subsequent shunt was impracticable, sclerotherapy provided useful palliation with few serious complications.

It is generally agreed that some form of portal systemic shunt is the most effective means of preventing haemorrhage from oesophageal varices in a patient with portal hypertension. Unfortunately a shunt is not always possible or even desirable; for

are suitable for emergency or urgent portacaval shunt. Indeed, the majority of these patients with cirrhosis who survive the acute haemorrhage never become acceptable for a shunt because of advanced years or poor liver function. Even in the best surgical circles a small percentage of 'post-shunt bleeders' are found, particularly in patients with portal vein thrombosis—these present yet a further problem. It is in all these situations that we find sclerosing injections particularly useful. It is not suggested that this form of therapy is an alternative to a shunt; it is merely a further weapon in our therapeutic armoury. Although this form of treatment was first described by Crafoord and Frenckner in 1939 and was introduced to the British Isles in 1955 by Macbeth it has not been universally accepted. The technique described here has been used in Belfast, with few modifications, since 1958.

Johnston and Rodgers 1973

Influential Paper

Cited 330 times

Stimulated many others, including John Terblanche and K-J Paquet

Led to 2 key developments



Adaptation to Flexible Scope



Banding replaced injection

One major consequence was that management passed out of the hands of surgeons

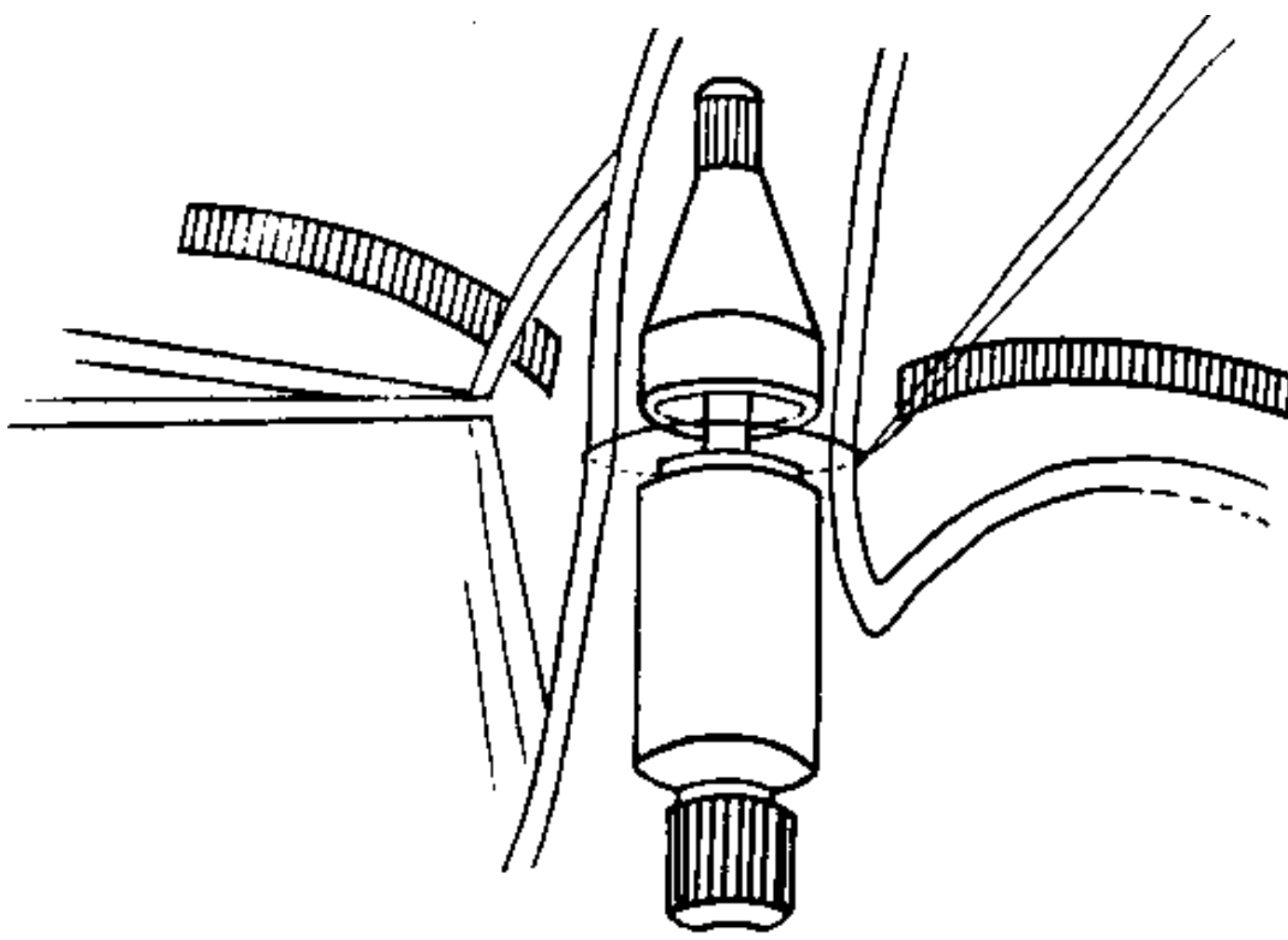
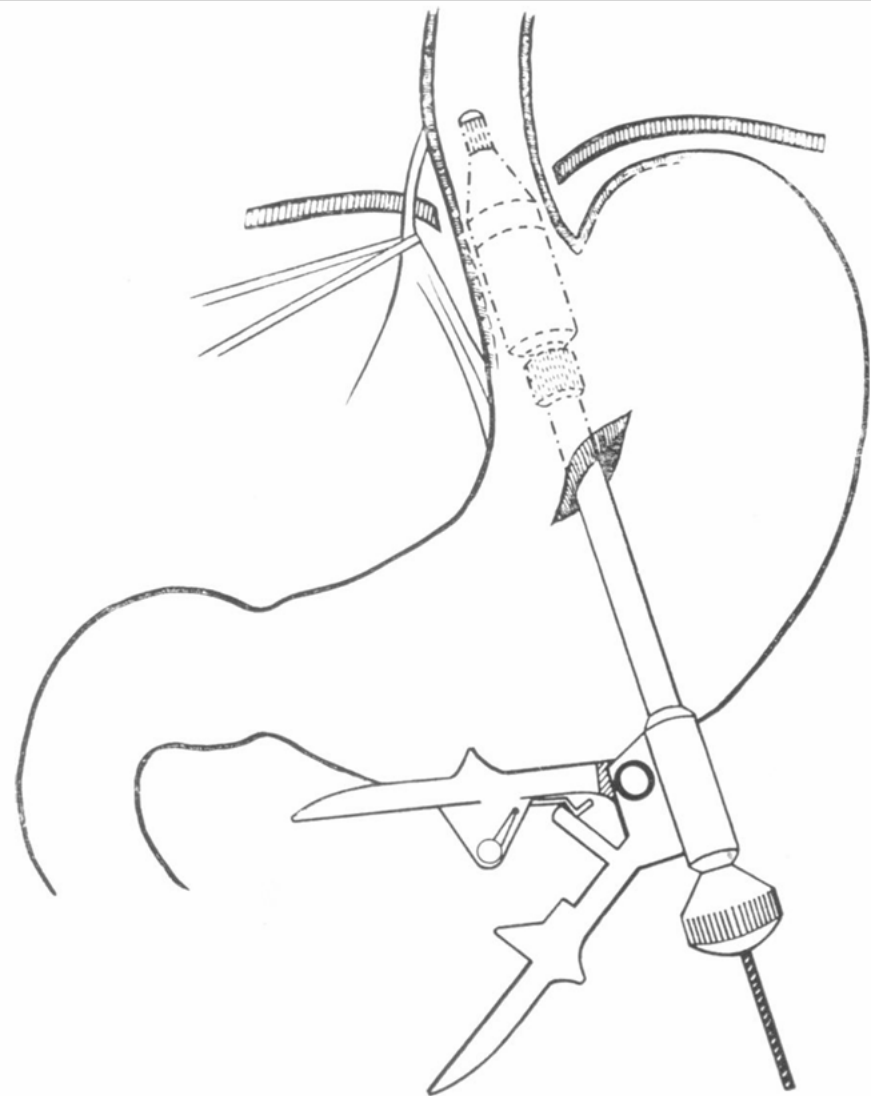
Development of Esophageal Transection

- Coincided with introduction of surgical staplers
- “Russian Gun” brought back from Russia in his suitcase
- Staples had to be loaded manually before sterilization
- Precursor of EEA circular stapler

The SPTU “Russian Gun”







“Waste not, want not”

- Excised Donuts examined histologically
- Compared with distal esophageal specimens from other diseases
- Submucosal veins become very superficial only in the distal 1cm
- In portal hypertension, covering may be only one cell thick

The Johnston Recipe

- Emergency management: injection
- Stapled transection for rebleeders
- Portocaval shunts for transection rebleeders
- Terminal liver failure – managed medically

The Johnston Recipe

INJECT

TRANSECT

SELECT (for shunt)

REJECT

Long-term consequence

- Most surgical residents will never have to manage bleeding esophageal varices
- Endoscopic therapy now uses banding with flexible scope
- TIPSS procedure effectively replaces surgical portocaval shunting

Other contributions

- Surgery of civil violence during the Northern Ireland “Troubles”
- Development of Highly Selective Vagotomy and optimization of drainage techniques
- Studies in Colorectal surgery – the unhealed perineal wound after APR

As a person

- Short stature
- Universally known as “Wee George”

“Quick, quick”

- Talked quickly
 - Walked quickly
 - Made decisions quickly
 - Operated quickly
 - Wrote quickly
-
- Sometimes so rapid in thought process and in operative surgery that it was hard to learn from him

Recognition

- King James IV Travelling Fellowship 1976
- Invited to speak at surgical and gastroenterology conferences in USA, Canada, Australia, New Zealand, Japan, Hong Kong, Kuwait, Oman, India, Nigeria, South Africa, and numerous congresses in Europe: Paris, Rome, Tubingen, Zurich, Lund, Copenhagen, Lisbon, Jerusalem, and every major city in the UK and Ireland
- Personal chair in Surgery conferred by Queen's University
- Awarded OBE by her late Majesty Queen Elizabeth II

The “Miracle” that was never reported

- Kevin Ellison – born in Newry, Northern Ireland, 1957
- Age 19 – admitted to local hospital with “appendicitis”
- Appendix removed - normal
- Serious deterioration over the next few days
- After 1 week – returned to OR

Findings in OR

- Entire small bowel necrotic
- “nothing to be done”
- Incision closed
- Morphine drip
- Last Rites administered



Downward Trend over next 7 days

- Relic of well known Irish priest brought to the bedside
- Medallion clipped to Hospital gown
- Surgeon prevailed upon to refer the patient to Belfast
- Transferred to George Johnston in Royal Victoria Hospital Belfast

Abdominal disaster

- Rapidly resuscitated
- Taken to the Operating Room
- Incision was falling apart
- “black sausages” – separated from mesentery – pulled out
- Abdominal cavity after removal appeared totally empty
- Dissected off peritoneum in LUQ to approach 4th part of duodenum
- Same in RLQ to identify cecum and terminal ileum

A few precious inches of bowel

- Proximal jejunum anastomosed to last few inches of terminal ileum
- Only a few inches remained
- Anastomosis and Incision healed primarily
- Able to take PO but torrential diarrhea
- Put on TPN

Eventual recovery

- Weaned off TPN
- Able to eat

Local community believed it to be a miracle

Attributed to the intercession of a famous priest

Fr Edmund Rice (1762- 1844)

2 years later developed gallstones and required cholecystectomy

Edmund Ignatius Rice (1762-1844)

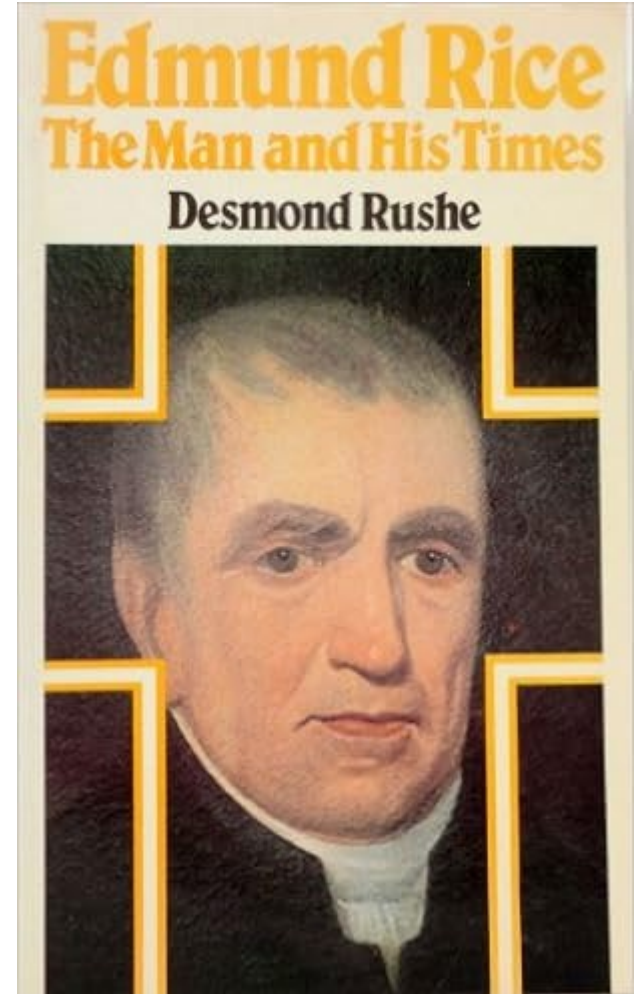
Irish priest and educator

Founder of Christian Brothers schools

Worldwide network of Catholic schools

Widely known and venerated in Ireland

Medallion of Fr Rice given to Kevin Ellison on transfer to the Royal Victoria Hospital



GLOBAL NETWORK OF EDMUND RICE SCHOOLS

SCHOOLS FOR THE WORLD



EDMUND RICE NETWORK OF SCHOOLS:
21 Countries
280+ Schools
20,000+ Staff
190,000+ Students



Outcome

- Kevin married, 3 children and normal job and family life
- First child named Edmund
- Local campaign to have Fr Rice recognized as a saint

Three steps toward Canonization

- Veneration
 - Beatification
 - Canonization

Papal commission to investigate the “miracle”

- Panel of Irish clerics and scientists reviewed medical records
- George Johnston extensively questioned

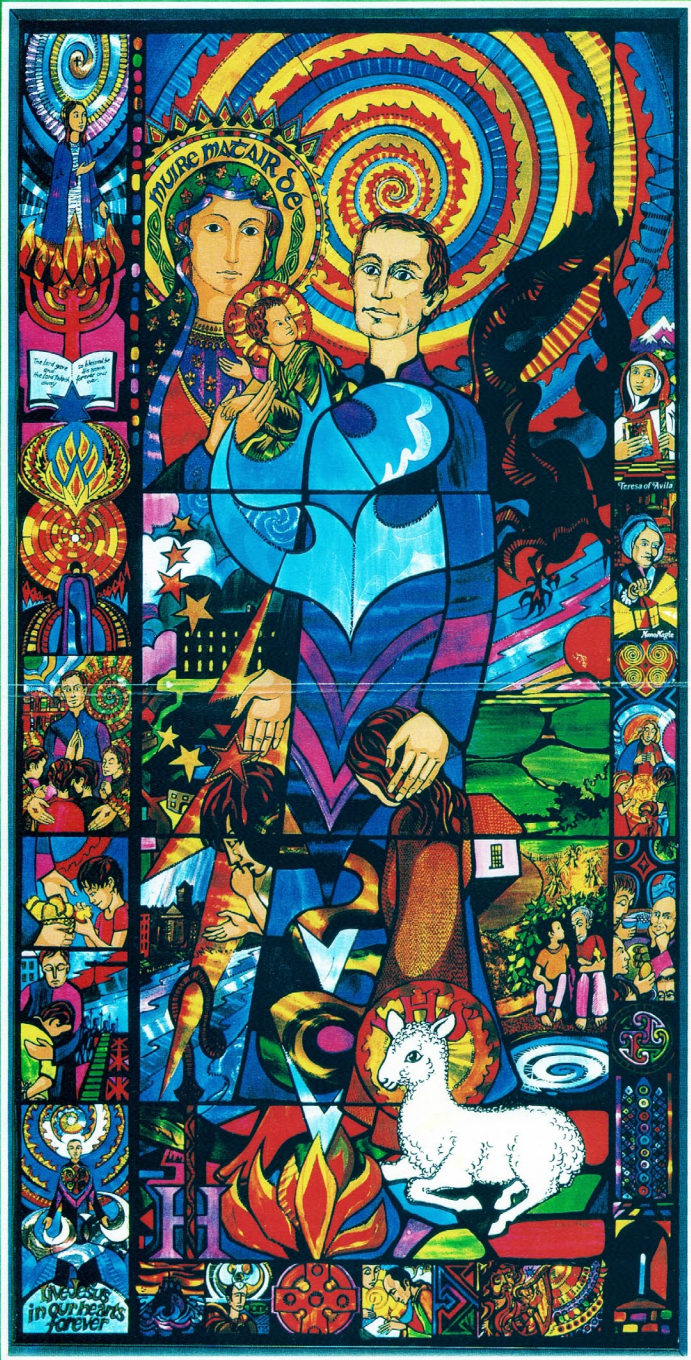
Conclusion: *This was a miracle*

Recommendation sent to Pope John Paul II

Father Rice officially Beatified

October 6, 1996, St Peter's Square, Rome







Kevin Ellison remained in contact with Mr Johnston for over 40 years

The death has occurred of

Kevin Ellison

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[HOME](#) / [DEATH NOTICES](#) / [ELLISON, KEVIN](#)

Ellison, Kevin - R.I.P. 7 Willow Grove, Newry. 10th June 2023, peacefully at Craigavon Area Hospital. Beloved husband of Mary, deeply devoted father of Edmund, Ritchie and Paul, father-in-law to Ruth, loving grandfather of Lucas and Georgia. Treasured twin brother to John, brothers, sister and Ellison and Mc Cann family circle.

Kevin's remains are reposing at his home. House strictly private please. Requiem Mass will be celebrated on Tuesday (13th June) at 12.30pm in St. Catherine's church, Dominic Street, Newry. Burial afterwards in Monkshill cemetery.



Johnston's Retirement

- Retired in his early 60s
- Sought after speaker in many church-related activities
- Functioned as a lay counsellor

- Developed CHF in his 80s

What made him tick?

- Profound evangelical Christian faith
- Support of a very cohesive family

If I could leave one lesson....

It's amazing how much good
you can do, as long as you
don't mind who gets the credit

