SELECTED SUMMARIES

The Safety of Combined Endoscopy, Biopsy and Dilatation in Esophageal Strictures.


The evaluation and management of esophageal strictures ordinarily involves the three procedures of endoscopy, biopsy, and dilatation at different times. The safety of performing these procedures in a single sitting was evaluated. The study included 48 patients (ages 44-85) with radiographically confirmed esophageal strictures located in the upper third (3/48), middle third (18/48), and lower third (27/48) of the esophagus. The strictures were determined to be due to peptic esophagitis of varying severity (23/48) or carcinoma (20/48). Dilatation immediately followed endoscopy and biopsy with an average of three mercury-weighted dilators passed at this sitting. The size and type of dilators were determined clinically by the endoscopic estimate of esophageal lumen diameter. Anesthesia included topical Cocaine and intravenous diazepam (5-15 mg). All patients experienced symptomatic improvement immediately following the procedures. No complications were encountered. These data indicate that endoscopy, biopsy and dilatation of esophageal strictures may safely be performed in a single sitting. Other advantages may include shortened hospital stay, earlier diagnosis and relief of symptoms and increased cost effectiveness.

B. S. Anand
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Duodenoscopic placement of biliary prosthesis in malignant obstructive jaundice.


The author has attempted to treat jaundice in 17 patients by placing prostheses through their biliary or pancreatic tumours at ERCP. He has used 2.8 mm (8 French) external diameter moulded polyethylene pigtail tubes over a guide wire passed through an Olympus JFIT duodenoscope. The procedure was technically successful in 13 patients, of whom all but two (who died at 10 and 14 days) lost their jaundice. Two patients were explored for attempted cure, but were found to have metastases. Nine patients left the hospital with prostheses. Four developed tube complications; three suffered cholangitis. One of these is being treated by percutaneous external drainage. The other two and a patient who developed pancreatitis were treated successfully by replacing the tubes (which had displaced upwards) by tubes with double pigtales. Of the eight patients whose jaundice has therefore been treated satisfactorily, two died at one and five months; the remaining six are alive, three at more than six months. The method is often technically simple, and is still developing; sepsis has been the main problem. He is now using 3.7 mm diameter tubes through a larger endoscope.

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Pneumatic dilatation for oesophageal achalasia.


Between 1970 and 1980, 38 pneumatic dilatations were performed in 32 patients with radiologically and manometrically proved achalasia of the oesophagus. Thirty-three were performed by the Hurst-Tucker method, four using a Rider-Moeller dilator and one with Pilling dilator. Thirty patients had a first dilatation; two having had both a previous dilatation and a Heller's cardiomatomy. There were three recognised complications (7.9%), two occurred with the Rider-Moeller, and one of the patients died.

Results were evaluated on strict clinical criteria with a median follow-up time of 3.67 years (0.58-8.50 years). Of the 37 analysed dilatations four (11%) were excellent, 16 (43%) were good, six (16%) were moderate, and 11 (30%) were poor. Of 30 first dilatations four (13.3%) were excellent, 12 (40%) were good, four (13.3%) were moderate and 10 (33.3%) were poor. In Hurst-Tucker dilatations four (12%) were excellent, 14 (45%) were good, five (15%) were moderate, and 10 (30%) poor. Of the
patients with poor results six were radiated and three required a Roux-en-Y diversion for severe gastrooesophageal reflux of which one needed a previous dilatation of a peptic stricture. Another patient developed severe gastrooesophageal reflux and a peptic stricture, but was not treated. Subjective results were better, 24 (65%) describing themselves as a lot better, seven (19%) as better, one (3%) as the same and five (12%) as worse, and none as a lot worse.

The objective symptomatic results are poorer than other published results of forceful dilatation.

B. S. Anand

New Delhi

Gastric Ulcer: Is endoscopy always necessary?


The authors have undertaken a study to assess the utility of a good quality double contrast barium meal examination in predicting whether a gastric ulcer is benign or malignant. Eighty patients with gastric ulcer were subjected to a double contrast barium examination and subsequently to endoscopy with biopsy. Of these, 21 patients were subsequently operated upon and the histopathological examination of the resected specimen done. Patients were followed up for 4 years after diagnosis of benign ulcer for any malignant change.

The radiological criteria for a benign ulcer were that the guidelines which converge on the ulcer run straight and reduce in thickness until they join the margins of the ulcer crater. In contrast, in a malignant ulcer, the guidelines were bent, did not reduce in thickness as they approached the lesion and often stopped short of the ulcer crater. No importance was attached to the site, size or shape of the ulcer.

A confident diagnosis of benign gastric ulcer could be made in all 80 patients studied on barium examination alone and this was later confirmed by endoscopy and histopathological examinations.

Authors conclude that a good double contrast barium meal examination is sufficient to decide whether a gastric ulcer is benign or malignant and precluded endoscopy in most patients.

R. P. Kamath

Bombay

Non-operative removal of bile duct stones by duodenoscopic sphincterotomy in the elderly.


Thirty percent of the people over 70 years of age have gall stones. The incidence of gall stones and need to explore the bile duct increases with age. However, the reported mortality from these surgical procedures in such cases varies from 12-29 per cent. The authors report their experience of extraction of stone from the common bile duct in 71 patients over the age of 70 years, with diathermy sphincterotomy using a fiberoptic duodenoscope. Only 15 patients had their gall bladder in situ, the rest having undergone cholecystectomy in the past. All patients were subjected to an endoscopic retrograde cholangiopancreatography (ERCP) after being sedated with pethidine and diazepam. Once choledocholithiasis was confirmed radiologically, the catheter was replaced by the sphincterotome and the papilla incised to expose the duct. Stones were allowed to pass spontaneously or extracted using an endoscopic basket or balloon catheter.

Sphincterotomy was possible in 69 out of 71 patients. In 2 patients sphincterotomy was not possible because of scarring by periampullary diverticulae. Stones were passed out in 65 patients, giving a success rate of 92%. In 4 patients, the stones were too large to be excreted out of the papilla.

Complications occurred in 9 patients (13%) and included haemorrhage (4), cholangitis (4) and pancreatitis (1). There were no deaths and the average duration of hospital stay was 11 days. Follow up of 53 patients for 5 years showed no recurrence of stones or sphincter stenosis.

Authors concluded that duodenoscopic sphincterotomy is a major advance in the manage-
ment of patients with common bile duct stones, especially those who are poor surgical risks.

R. P. Kamath
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Flexible fiberoptic sigmoidoscopy as an outpatient procedure

Leicester RJ, Hawley PR, Pettell WG, Nicholls RJ. Lancet 1982; i: 34-5.

Most colo-rectal cancers and polyps occur on the left side of the colon but are beyond the reach of the standard rigid sigmoidoscope. A tortuous sigmoid colon or one ridden with diverticulitis may be difficult to study by barium enema. The authors have compared the effectiveness of sigmoidoscopy with a flexible fiberoptic sigmoidoscope (60 cm colonoscope) to that with the rigid instrument.

Five hundred and sixteen patients with suspected colonic disease seen in the gastroenterology out-patients were subjected to rectum digital examination, proctoscopy and rigid sigmoidoscopy. This was followed by 2 phosphate enemas (200 ml). Flexible sigmoidoscopy was performed 10-15 minutes later with a standard 60 cm fiberoptic sigmoidoscope.

The average time taken for the flexible sigmoidoscopy was 7.6 ± 4.2 minutes and the scope was introduced up to three times the distance covered by the rigid scope (average 50.8 ± 11.9 cm as compared to 17.7 ± 4 cm with the rigid scope).

The rigid sigmoidoscopy showed an abnormality in only 76 patients (14-7%) whereas flexible sigmoidoscopy revealed an abnormality in 167 cases (35.2%). Flexible sigmoidoscopy could detect three times the no. of adenomas and five times the no. of carcinomas detected by rigid sigmoidoscopy. Flexible sigmoidoscopy was found to be equally acceptable as rigid in most patients. However 31 per cent found it more uncomfortable.

Fiberoptic sigmoidoscopy is an important method of increasing diagnostic yield when the patient presents with colonic symptoms and has obvious application in screening high risk patients.

R. P. Kamath
Bombay

Increased long term survival in Variceal haemorrhage using injection sclerotherapy.


A controlled trial to study the effectiveness of endoscopic injection of varices to prevent rebleeding was carried out in 107 patients of cirrhosis with portal hypertension and varices.

In a randomised trial in patients with cirrhosis and recent variceal haemorrhage, 51 patients were allocated to the sclerotherapy group and 56 to the control group. In the sclerotherapy group the variceal injection was given soon after the bleeding episode was controlled and the patient had been stabilised. Injection was given with the help of a fiberoptic endoscope with a flexible oesophageal sheath. Sclerotherapy was repeated once every 3 weeks till the varices had been obliterated or were too small for injection.

The two groups matched in the age, sex, type of cirrhosis and severity of varices. All patients were followed up with endoscopy every 3 months. In the sclerotherapy group 22 out of 51 had rebleeding during the treatment period and 42 survived to continue the trial after obliteration of varices. Of these only 4 patients bled subsequently. As compared to this, in the control group, 42 out of 56 (75%) patients rebled when managed medically only. The mean number of injections required for obliteration was 4 (range 3-12).

The risk factor for further haemorrhage per patient month was three times greater in the control group. At the end of one year 73 per cent in the sclerotherapy group and 58% in the control group survived. Cumulative life analysis showed significantly improved survival in the sclerotherapy group.

Complications observed were (a) oesophageal ulceration in 15, (b) stricture in 9 patients, and
(c) perforation in 2 patients. Ulcerations healed with cimetidine therapy. Four out of 9 patients developing stricture required 1-3 dilations. Of the 2 patients who developed perforation, one in whom a rigid scope was used died.

Sclerotherapy offers an important and easy alternative to invasive and major surgical procedures with all their inherent complications in the prevention of variceal rebleeds.

R. P. Kamath

Bombay

Interferon system in acute viral hepatitis


One of the early defense mechanisms in viral infections is activation of the interferon system. Virus infections stimulate certain cells to produce molecules of one or more of the various interferons which in turn prime other cells into an antiviral state, thereby limiting spread of infection. The study was undertaken to re-evaluate the interferon system in viral hepatitis using new assays and to find the correlation between the severity of the hepatitis and the efficiency of the interferon system.

22 patients with clinical and/or laboratory diagnosis of viral hepatitis were included in the study. The hepatitis being of the A, B or non-A, non-B type, 8 of the 22 patients had fulminating hepatitis with coma while the rest ran a normal course. Interferon production in vivo was measured by assay of the serum for some factors which prevent the cytopathic effects of virus on interferon sensitive fibroblasts. In vitro production was measured by the ability of the mononuclear cells to produce interferon-α and when stimulated with polyinosinic cytidylic acid and interferon-γ when stimulated with phytohaemagglutinin (PHA).

Five out of 6 patients with fulminating hepatitis were treated with interferon-κ (3 × 10^5 units IM/day for at least 2 days). Studies of the interferon system were done before, during and after treatment.

The study revealed that only in fulminating hepatitis the initial serum levels of interferon were low, almost undetectable in 6 of them. The mononuclear cells in all 6 did not produce interferon-γ or α when stimulated. The other patients with viral hepatitis had normal interferon systems in vitro and vivo. Of the 5 patients who received interferon therapy, 3 showed dramatic and rapid clinical improvement and recovered. Two patients died, on the 5th day of treatment. Interferon had induced an antiviral state in all 5 patients. The deaths despite of interferon were probably due to administration of the drug after irreversible liver cell damage had occurred.

Interferon should be given a trial in life threatening hepatitis of any cause and treatment should be initiated as early as possible for optimum results.

R. P. Kamath

Bombay

Intragastric balloon as an artificial bezoar for treatment of obesity


Treatment of gross obesity has included jejunoileal bypass surgery, gastroplasty and jaw wiring among other things. The authors describe a unique method of reducing appetite and increasing weight loss by the use of intragastric balloons.

Five obese women with an average weight of 88.7 kg, being on an average 52 per cent overweight, were included in the trial. A rubber balloon with an air-tight valve was placed in the stomach with a gastric tube which was then withdrawn. The balloon volume was 450 cm^3 with pressure of 60 mm Hg. Each balloon was left free in the stomach and remained inflated for a period of 7-21 days (average 12 days) after which it was deflated and was excreted out.

The hunger records showed that patients were less hungry with the balloon, but when the balloon collapsed, they became more hungry. The average estimated weight loss per initial 10 days' period of balloon inflation was 5 kg compared to the weight loss of only 0.5 kg during the similar deflation period. The weight loss during the subsequent inflation was 2.1 kg per 10 days' period. There were no complications. Intragastric balloon bezoars appear to be a very useful and simple way of weight reduction. Balloons which are longer lasting need to be developed for a better long term effect.

R. P. Kamath

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