THE FIRST CONGRESS OF
THE INTERNATIONAL SOCIETY OF

ENDOSCOPY

PREMIER CONGRES DE
LA SOCIETE INTERNATIONALE

D'ENDOSCOPIE

ABSTRACTS

September 16 - 18, 1966

TOKYO, JAPAN

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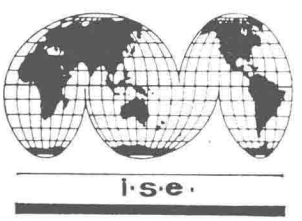

ABSTRACTS

September 16 - 18, 1966

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FRIDAY, Sept. 16-Morning

Opening Ceremony :

10 : 00 - 12 : 00 .....Providence Hall (2nd Floor)

FRIDAY, Sept. 16-Afternoon

Esophagoscopy (Symposium I) :

14 : 00 - 15 : 30 .....Providence Hall (2nd Floor)

Rectocolonal Endoscopy (Symposium I) :

16 : 00 - 17 : 30 .....Providence Hall (2nd Floor)

Endoscopy of Stomach and Intestine (IIa) :

14 : 00 - 17 : 30 .....Magnolia Hall (2nd Floor)

Reception :

19 : 00 - 21 : 00 .....Rose Room, Palace Hotel (2nd Floor)

CONTENTS

1 Successful Still Photography with the Fiberesophagoscope

Richard S. McCray (Boston, U.S.A.)
S. J. Winawer

Endoscopic photography provides a permanent record of esophageal lesions for purposes of patient care and investigation. Although movies are also useful in this regard, still photographs are more convenient for projection at conferences and may be incorporated into the patient's record.

Previous failure to obtain satisfactory still photographs has been attributed to esophageal movement and to the slow emulsion speed of available color film.* We have used the Fiber Optic Esophagoscope and a Nikon F Camera with a 105 mm lens equipped with a motor drive which permits taking 2 photographs/second. The film used was High Speed Ektachrome 35 mm type B, ASA 125, rated and processed at ASA 250. A variety of lesions have been successfully photographed. This same apparatus may be used with the Gastroduodenal Fiberscope.

By providing prompt visual evidence of esophageal lesions, this tool has restimulated study of the management of diseases such as upper gastrointestinal bleeding, esophagitis, cancer and varices on the wards of the Boston City Hospital.

* LoPresti, P. A., and Hilmi, A. M. Clinical Experience with a New Foroblique Fiber Optic Esophagoscope. Amer. J. Dig. Dis., 9 : 690, 1964.

2 Experiences with a Fiber Esophagoscope

Hugo Charles Moeller (San Francisco, U.S.A.)
J. Alfred Rider

In 1957 the gastroduodenal fiberscope utilizing fiber optic bundles to examine the interior of the stomach was developed. Recently an esophagoscope utilizing the principle of fiber optics has been devised. This new instrument incorporates a distal lens system in which the principle optic axis is a 25° deviation from the main axis of the instrument. Two separate fiber optic bundle systems are utilized. One transmits cold light from an external light source and the other is for optical transmission. Two channels are incorporated which make up an aspiration-inflation system. One is used for distending the esophageal lumen with air or water and the other for aspirating secretions. The latter is also used for biopsy forceps.

The obvious advantage to this instrument is the ease of introduction. The examination can be carried out with the patient sitting or in the left lateral position. The diagnostic potential of this instrument is excellent. However, since it does not have a central lumen it cannot be used for removing foreign objects.

3 Clinical Experience with the LoPresti Fiber Optic Esophagoscope

Ramon A. Boom (Mexico, D. F. Mexico)

60 examinations in 53 patients were performed with the LoPresti fiber optic esophagoscope at the "20 de Noviembre" Hospital in Mexico City. The diagnosis made with the instrument in these cases were as follows: esophagitis—15 cases—(between them 5 had diaphragmatic hernia); diaphragmatic hernia without esophagitis—5—; esophageal varices 8; esophageal carcinoma 5; esophageal stenosis 1; esophageal ulcer 1; achalasia 1; normal esophagus 17.

Preparation: Fast patients (the studies were made usually early in the morning); meperidine 50 to 100 mg. and atropine 0.0005 g. as preoperative medication; the pharynx was anesthetized with xylocaine 1% locally.

The instrument generally passed without difficulties in the upright or left lateral decubitus.

We did not have important complications during or after the esophagoscopy. The procedure was generally easy to perform and produces less discomfort in the postoperatory hours than the ordinary esophagoscope.

The visualisation is not as clear as with the ordinary esophagoscope but is good enough to make diagnosis in the majority of cases. As it is well tolerated it offers the advantage that you can show other physicians and students and also take pictures. The gastroesophageal junction is usually very well seen.

4 Esophagoscope of Japanese Make

Eizo Inaba (Tokyo, Japan)

In 1958, I made an air-feeding esophagoscope. This scope has a vinyl outer tube to protect the tissue of esophagus, and, by observation, we send air to the esophagus and inflate it.

In 1963, we introduced an optical tube with glass fibers as a light guide into esophagoscope and this helped to make the diagnosis more accurate.

These improvements will popularize the esophagoscopic examination.

This report is the result of diagnosing of some diseases by these esophagoscopes.

5 Differential Diagnosis by Esophagoscopy on the Picture of the Esophageal Mucous Membrane

Komei Nakayama (Tokyo, Japan)
Mitsuo Endo
Seiichiro Kobayashi
Shigeru Suzuki

Esophagoscopy has been widely done with the support of fluoroscopic examinations. X-ray examinations by pressure cannot be done in the esophagus, and where there is a shallow superficial lesion, conviction in diagnosis can be made by esophagoscopy.

In stenosis of the esophagus as shown in the X-ray findings, esophagoscopy is most useful in differentiating between cancer and ulcer, and also useful in diagnosing the lower part of the esophagus, in which irregularities and rough relief are shown.

Biopsy or cell diagnosis could be obtained by esophagoscopy for the differential diagnosis of the inflammation of the esophagus, ulcer or small cancer. Various cases have been experienced and reported.

Fiberscope for esophagus is most useful in the macroscopic examination of the esophagus, and manipulation could be easily done by the doctors with not so much distress on the patient.

6 Detection of Malignant Neoplasia of the Gastrointestinal Tract by Use of Radioactive Phosphorus and a Miniature Geiger Tube

Robert S. Nelson (Houston, U.S.A.)

Malignant neoplastic tissue has been shown to accumulate radioactive phosphorus (P^{32}) at a more rapid rate and to a greater extent than normal tissue. Patients previously given the isotope demonstrate a diagnostic differential when tested with a Geiger tube over normal and neoplastic tissues. The method was used in 95 esophageal, 49 gastric and nine rectal tests to determine the presence of cancer. In the esophagus, a miniature Geiger counter was incorporated in the tip of a teflon tube and passed through the esophagoscope. The same type of counter apparatus was also passed through the sigmoidoscope for rectal testing. For gastric evaluation, the Geiger tube was incorporated in the end of a controllable tip gastroscope for approximation under direct vision. In 112 esophageal tests, 39 had primary cancer of the esophagus, 13 cancer of the stomach involving the lower esophagus, 11 had esophagitis, two achalasia, two benign stricture and 45 were normal controls. There was an accuracy of 96.1 per cent in those

with cancer, and 96.4 per cent in the whole group. In 56 gastric tests, 26 had cancer, 14 benign ulcer, two benign tumors, and 13 were normal controls. Cancer patients gave 77.3 per cent accuracy, and overall accuracy was 78.8 per cent. There was 90 per cent accuracy in 50 rectal tests. Accuracy of testing in all groups correlated closely with close approximation of the Geiger tube to the surface to be tested. This is much simpler in esophagus and rectum than in the stomach for technical reasons. Evaluation of possible malignant neoplasia with P^{32} and the miniature Geiger counter in the accessible regions of the gastrointestinal tract is practical and valuable in the esophagus and rectum, but accuracy must be improved by better methodology for gastric testing.

1 Comparison of Recto-Sigmoidscopy Using Color Photography, Color Movie Film, Black and White Television with Tape Recording

Adolf Hans Wiebenga (Amsterdam, Netherland)

Endoscopy is a medium giving information in full colour to the human eye on pathology in the organ under investigtion.

Light sources and light transmission have improved to the extent that color-cinematography (with or without electronic flash) and colorcinematography are possible and are giving satisfying results.

However " co-vision " during endoscopy by other colleagues is limited and reproduction of documents, as mentioned above, is afflicted with a time lag due to processing of the film.

Television brings teaching of endoscopy (as a technique) as well as teaching diagnostics by means of endoscopy within reach because co-vision by any number of those interested, is possible. Video-tape recording provides an immediately available endless chain of reproduction.

There is room for a lengthy discussion concerning the choice between colour or black and white television. However so far black and white television is a direct possibility while colour television requires special provisions such as extra light, optimal connecting between instrument and the heavy fixed camera as well as economical facilities for the institute.

We proposed to develop a detailed knowledge around black and white television, being at least within reach of each endoscopic centre. The switch to colour television is not a large one from there on.

Discussion is centered around:

1. light sources*(hot and cold light)
2. light transmission (quartz, fiberbundles)
3. black and white television**(camera, means of connecting)
4. endoscopy using the television monitor as a mean of guiding the instrument
5. video-tape recording (the advantage of immediate reproduction)
6. black and white information as against colour vision (advantages and disadvantages)
7. problem around fixed or nonfixed (weightless) camera's and their attachment to the endoscopic instrument.

* the television equipment is the " medicaltelevision circuit " of Philips(Holland)

** a new, very bright light source is developed by Storz (Germany) in cooperation with Philips(Holland)

2 Recto-sigmoidiennes en Couleurs avec une Lumière Froide

Charles Debray (Paris, France)
J. Segal
J. Leymarios

The résumé did not arrive.

3 Studies on Photographing the Colonic Mucosa

Tamotsu Yamaguchi (Hirosaki, Japan)
Fujio Matsunaga

Ever since October 1957, when Professor Matsunaga first reported the device of Sigmoido-camera and its clinical use, the role and significance of the camera in the clinical practice have been emphasized, and recognized as well, in the nation-wide and even in the international meetings of endoscopy and gastroenterology.

A study of the mucosal appearance of the colon is essential in making correct diagnosis of colon diseases. Sigmoido-camera is the only clinical diagnostic tool that can take photographs of the colonic mucosa beyond the sigmoid colon, and here lies the clinical significance.

However, insertion of the camera into the deeper part of the colon is not always easy because of the winding of the sigmoidal loop and of the structure of the camera per se.

For a better rate of insertion success and to overcome the other disadvantage of the camera, blind photographing, studies have been carried out with a newly designed fiberscope for colon examination.

At the symposium a report and discussion will be made on the recent result with Sigmoido-camera and the colon fiberscope in the diagnosis of colonic diseases.

4 Polypes, Pseudopolypes, Polypose et Tumeurs Villeuses du Recto-sigoide

Sandu Stoichița (Bucarest, Roumania)
Lidia Boicesco

Les auteurs présentent leurs études effectuées les 5 dernières années dans le Laboratoire d'endoscopie et d'anatomie pathologique du Centre de gastroentérologie de Bucarest.

Les polypes du rectosigmoïde ont été étudiés à l'aide de l'endoscopie et de l'irigographie. La biopsie dirigée a été faite au niveau de la base et au niveau du sommet pour pouvoir préciser si une malignisation est présente.

Deux cas de polypose familiale et trois cas de syndrome de Peutz-Jeghers sont présentés.

Les auteurs discutent l'importance du facteur héréditaire, les particularités cliniques et évolutives.

Ils attirent l'attention sur la fréquence d'accidents obstructifs intestinaux dans le syndrome de Peutz-Jeghers.

La mélanine a été mise en évidence dans les polypes du syndrome de Peutz-Jeghers. La signification de ce fait est discutée.

Une étude comparative est faite avec les cas de pseudopolypes qui compliquent la colite ulcéro-hémorragique.

A la fin du travail les auteurs discutent le rapport existant entre les polypes du rectosigmoïde et les tumeurs villeuses.

La dernière partie du travail est dédiée à l'étude thérapeutique, aux indications chirurgicales et à la tactique choisie.

1 Correlative Study of the Dynamic Anatomy of the Antrum and Pylorus

J. Alfred Rider (San Francisco, U.S.A.)
Hugo C. Moeller
Ernesto J. Puletti

The initial reports concerning the efficacy of the Hirschowitz gastroduodenal fiberscope indicated that the instrument could readily penetrate the duodenal bulb. The present opinion held by most gastroscopists is that this instrument does not usually allow the operator to directly observe the mucosa of the duodenum. Anatomic drawings, gastrocinematography, correlated with fluoroscopy demonstrate that there is a proximal "rosette" sphincter present in the distal antrum which can readily be confused with the pyloric ring. The area beyond this, while still anatomically part of the stomach, represents the distal antrum or pyloric channel. Gastroscopically, the true pyloric ring appears as a small concentric lumen distal to the "rosette."

This differentiation is of great importance in the separation of pyloric from duodenal ulcer.

2 The Relationship between the Gastroscopic Findings and Vascular Structure of the Stomach Wall

Nobukatsu Shimada (Tokyo, Japan)
Shoji Maeda

The gastroscopic findings are liable to be influenced by the various subjective findings, e.g. the redness of the gastric mucosa.

In order to make more concreate observations, the vascular structure of the stomach wall was studied using microangiographic technique.

A close relationship between the redness of the mucosa observed by gastroscope and the vascular structure of the stomach wall was demonstrated.

Studied on 64 cases of various diseases of the stomach, such as gastritis, erosion, polyps, ulcer and cancer of the stomach, made it possible to differentiate benign erosion from the malignant one or scirrhus from superficial gastritis.

Microangiography also revealed the extent of invasion of malignancy into the deeper layer of the stomach wall at the site of early stomach cancer.

The characteristic vascular patterns were demonstrated in the malignant erosion, the healed ulcer and the malignant area of the large ulcer, all of which are often accompanied by the difficulties in establishing the diagnosis as we stressed previously.

3 Studies on Diagnosis of Gastric Diseases with Gastrocamera after Intravenous Injection of Dye

Kenzo Kusui (Wakayama, Japan)
Tatsuji Kurahashi
Yoshinari Ohue

Recently, diagnostic evaluation of gastrocamera is being widely known in Japan. While, some dyes can be eliminated from the gastric mucosa, when injected intravenously. If gastrocamera is possible to catch thus eliminated substances, it might be contributory to detect a gastric disorder. Experimental and clinical studies on these points of view revealed the following results and diagnostic utility of this procedure. One percent methylene blue solution is mainly used in these studies.

1) It was clarified experimentally and clinically that gastrocamera is possible to catch the staining of the gastric mucosa with intravenously injected dyes.

2) The grade of staining of the gastric mucosa seems to be parallel to the acidity of gastric juice both in animals and men.

3) Pictures, taken by gastrocamera after the intravenous injection of methylene blue, might be contributory to simplify the detection of atrophic gastritis and gastric ulcer.

4 On Special Photography of the Gastric Mucosa

Eizo Kaneko (Tokyo, Japan)
Yutaka Utsumi
Yawara Yoshitoshi

The gastrocamera has been widely used in daily clinical works all over Japan. More recent investigations of the authors have yielded a new diagnostic refinement, as they have found that ultraviolet photography of the gastric mucosa will record surface details with considerably enhanced contrast, almost as if the tissues had first been fixed in formalin. This makes it possible to demonstrate very discrete changes on the mucosal surface, so that scar of ulcer and early neoplastic changes can now be recognized with greater ease and certainty.

The gastrocamera type III has been modified to accept an electronic flash tube and ultraviolet transmitting filters. The Xenon flash discharged tube has an output of 20 w/s (200 μF, 400 V) with a flash duration of 1/2000 sec. at a colour temperature of 6000°K.

The authors will show some characteristic photographies of gastric diseases by this new apparatus.

5 Problems in Endoscopy and Characteristics of Diseases of the Stomach in the Aged

Takuo Fujita (Tokyo, Japan)
Hajime Orimo
Masaki Yoshikawa
Kiku Nakao
Tadayoshi Takemoto
Yutaka Matsuo
Kizuku Kuramoto
Hideko Takanashi

Recent progress in the structure of the instrument and technic of examination with fibergastroscope and gastrocamera made these procedure quite safe even in patients in advanced age, opening a way into endoscopic examination in cases in which such procedure has been considered difficult. Sufficient cooperation might not be obtained from patients with advanced age and special precautions must be taken for anatomical changes such as deformity of the cervical spine. Changes in circulatory dynamics at the time of examination should also be guarded with utmost care.

From the experience of endoscopy in many patients in advanced age, several problems were investigated from these viewpoints. Influence of age on the clinical picture and frequency of chronic gastritis, gastric ulcer, and gastric cancer was also studied.

6 Experimental Study on the Recurrence Ulcer of the Stomach

Shingo Aoyama (Nagoya, Japan)
Saburo Nakazawa
Sadao Takagi
Reisuke Hayakawa
Sadaomi Furuhashi
Seibi Kobayashi
Yasuharu Tsuboi
Shonosuke Nagai

Following Churchill et al's report on cinchophen ulcers in 1932, this subject was studied by many investigators. But, few experimental studies on the recurrence of gastric ulcer have been reported. 1～2 g of cinchophen was administered to a dog daily for 3 weeks. The ulcer lesions were confirmed by endoscopy.

Then, the drug was stopped for 3 weeks and the cured lesion were confirmed endoscopically.

Then, the same dosis of cinchophen as before was re-administrated for the same duration and recurrence of ulcer was observed. The recurred ulcer near the previous scar was modified by existence of the old scar. Histologically the scar was demonstrated at the same site as that of relief convergency. Also, we observed the recurred ulcer was formed on the old scar. The interrupted rugae and the following concaved mucosa, which has been interpreted endoscopically and fluoloscopically to be malignant sign, were observed in the healing process of benign ulcer and the recurred one, too. Histologically, the muscularis mucosae fused to the muscularis propria at the site of the interrupted rugae and this lesion was covered with the regenerated epithelium.

Therefore, it will be concluded that when the interrupted rugae and the following concaved mucosa are found, the healing process, recurrence of benign ulcer and the malignant ulcer have to be considered.

7 Results of Fiber-gastroscopic Biopsy; with Special Reference to Diagnosis of Early Cancer of the Stomach

Ariya Fuchigami (Tokyo, Japan)
Kunio Takagi
Kenji Kumakura
Akira Fujii

Endoscopic biopsy of the stomach was carried out using the newly devised biopsy apparatus attached to Hirschowitz's fibergastroscope and a total of about 400 cases were examined since February 1964. Among these cases, results of biopsy were examined in stomach cancer, ulcer, and polyp cases found by histological examination of materials resected by surgery after biopsy, and over 80% were found to have been correctly diagnosed by biopsy. Examinations on the relation of the site, size, and macroscopic conditions in early cancer of the stomach to fiberscopic diagnosis and biopsy results showed that the results of biopsy were correct in most of the cases when the cancer was over 2 cm in longer diameter but about 60% correct when less than 2 cm. With respect to the relationship with macroscopic conditions, a better result was found with biopsy of flat depressed type.

A few cases in which fiberscopic diagnosis and biopsy results or biopsy results and post-operative histological findings did not show agreement will be presented, and further examinations on the diagnosis of early cancer of the stomach by endoscopic biopsy of the stomach will also be reported.

8 Gastoroscopy and Directed Gastrobiopsy in Diagnosing Stomach Cancer and Precancerous Diseases

Vyaino Ryatsep. (Tallin Estonian USSR)

1900 applied gastroscopies allow to state that this method completes the roentgenological examination. The parallel use of both of these methods enabled to put the exact diagnosis in 97.3 per cent of stomach cancer before the operation, as confirmed by laparotomy. The types of gastroscopes used by us are: 1) the flexible Wolf-Schindler gastroscope, 2) the Benedict gastroscope for directed gastrobiopsy. Directed gastrobiopsy was made of the lesion and of the gastric mucosa. This enabled us to come a final diagnosis of the stomach cancer and state the malignant polyp or ulcer. A negative finding in the presence of inconsiderable changes did not exclude the possibility of malignancy, as 1) the biopsy could have been effected from normal tissue in the vicinity of the cancerous focus, 2) the biopsy could have been effected on the surface.

In the case of cancer, polyp, ulcer and chronic gastritis certain histopathological changes coincidence of gastric mucosa was stated (atrophy, mucoid transformation of cells, intestinal metaplasia etc.). Certain combinations of these changes in the case of chronic gastritis objectively enabled to diagnose a precancerous state (that was observed in 11 per cent in the cases of chronic gastritis). The plausibility of this combination was controlled by the electronic computers. In 3 years out of 84 such cases of these changes of chronic gastritis developed a gastric cancer.

9 Clinical Use of Gastrocamera with Fiberscope (GTF) for Detection of Gastric and Hepatic Pathologies

Yoshio Hara (Niigata, Japan)
Kazuhiro Sugiyama
Yukichi Tobita
Makoto Watanabe

GTF has been used for the further investigations of 1,500 cases of gastric diseases and 20 cases of liver diseases up to now.

1) Correct diagnosis were made in 33 out of 37 (89%) of gastric polyps, in 420 out of 465 of gastric ulcers (90%) and 119 out of 130 gastric cancers (92%). In total 572 out of 632 of gastric pathologies (91%) could be made correct diagnosis.

2) And lesions on the upper part of the body of the stomach could be seen in 50 out of 60 (83%), 67 out of 69 (97%) in the middle part of the body, 354 out of 390 (91%) in the lower part of the body and angle, in 101 out of 112 (90%) in