



Notable Grand Rounds
of the
Michael & Marian Ilitch
Department of Surgery

Wayne State University
School of Medicine

Detroit, Michigan, USA

Choichi Sugawa, MD,

**SURGICAL GI ENDOSCOPY:
52 YEARS OF EXPERIENCE IN THE USA**

June 23, 2021

About Notable Grand Rounds

These assembled papers are edited transcripts of didactic lectures given by mainly senior residents, but also some distinguished attending and guests, at the Grand Rounds of the Michael and Marian Ilitch Department of Surgery at the Wayne State University School of Medicine.

Every week, approximately 50 faculty attending surgeons and surgical residents meet to conduct postmortems on cases that did not go well. That “Mortality and Morbidity” conference is followed immediately by Grand Rounds.

This collection is not intended as a scholarly journal, but in a significant way it is a peer reviewed publication by virtue of the fact that every presentation is examined in great detail by those 50 or so surgeons.

It serves to honor the presenters for their effort, to potentially serve as first draft for an article for submission to a medical journal, to let residents and potential residents see the high standard achieved by their peers and expected of them, and by no means least, to contribute to better patient care.

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Surgical GI Endoscopy: 52 Years of Experience in the USA

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June 23, 2021

The talk from which this paper was derived was delivered by Dr. Sugawa at the Wayne State University School of Medicine Surgical Grand Rounds on June 23, 2021.

The Gastrocamera

I have been in the United States for 52 years. When I was in surgical training at the University of Tokyo, Dr. Uji (in the middle in the top-right picture in **Fig.1**) developed the gastrocamera in Japan, and those are Olympus technicians with him. You pass the scope into the stomach and rotate it, taking 32 pictures covering the entire stomach. The images were usually developed by the next day, so we were able to make a diagnosis then.

Below the three worthies is a gastrocamera. At that time, the most important thing was to find early gastric cancer, which was very prevalent in Japan. Scoping enables about 45% of gastric cancers to be removed while in their early stages. Here in the US we don't see gastric cancer often.

Fig. 2 (next page) shows images from a comparative study of the gastrocamera vs. pathology in diagnosing gastric ulcers. The study report

was very long—22 pages. I received the PhD with this publication from the University of Tokyo. It was a difficult paper and there were eleven German references which I used in 1988 but I cannot read in 2021.

First Impressions

When I arrived in 1969 I didn't know much about Detroit. It had just had riots (**Fig 3**, next page.) We stayed in the Diplomat hotel near Woodward



Fig. 1. In training.

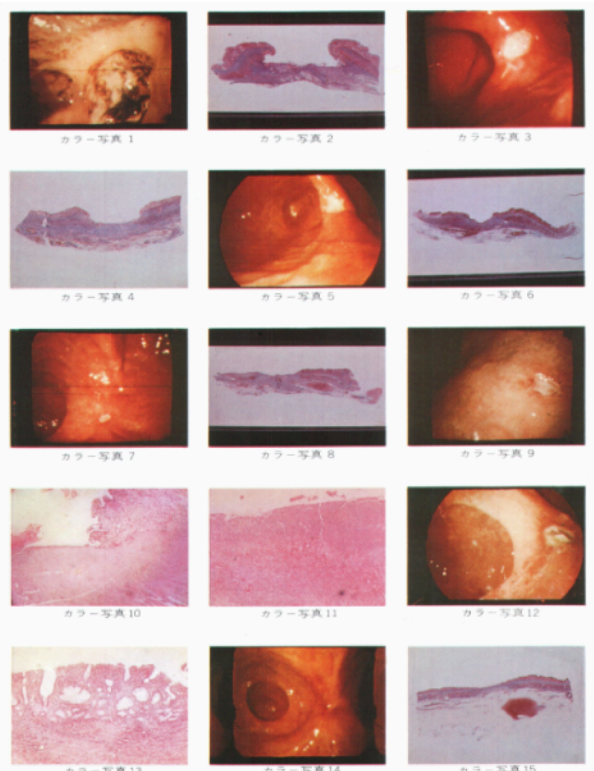


Fig. 2. A Study on Gastrocamera Findings of Gastric Ulcer: Precise Comparison Between Gastrocamera Photographs and Patho-histological Findings. Choichi Sugawa, MD. *Gastroenterological Endoscopy* Vol. 9, No. 4. 395-417, 1967.

and I-94. My wife and child and I left the hotel to take a walk. The hotel staff were aghast. It was a very dangerous time. And those riots were soon followed by student riots in the University of Tokyo in Japan. It was a confused time, what with riots, the moon walk, and the Vietnam War.



Fig. 3. 1960-1975

I had about 100 classmates, of whom more than 90% came to the US to study. They almost all went back to Japan. They still had lots of re-search money in the US but there were no US doctors involved in such research. Doctors came from Korea, the Philippine, India and other countries to take up the slack. Japanese doctors who came generally did not stay.

Fig. 4 shows an experimental study I presented at the 1971 American Society for Gastrointestinal Endoscopy (ASGE) meeting, about a year after my arrival. **Fig.5** is a picture taken at that meeting in Miami Beach, Florida. Today, the ASGE has grown to be a major society with 13,000 members. At that time, there was only one meeting room, with about 500 people and 20 to 25 presentations—five of them from Japan.

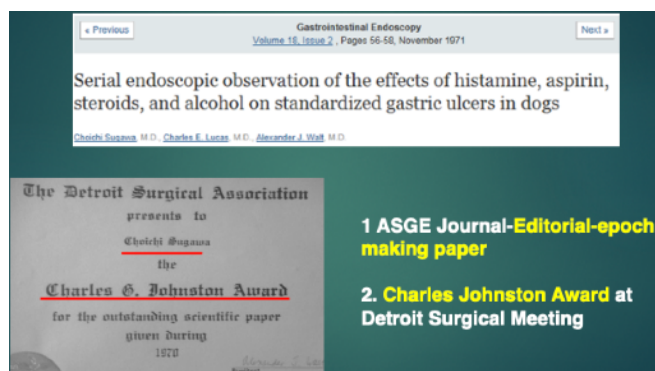


Fig. 4. Experimental Ulcer Study



Fig. 5. My wife and our good friend Dr. Tatsuo Yamakawa from the University of Tokyo, at the ASGE meeting in Miami Beach, Florida in 1970.



Fig. 6. Detroit General Hospital

The Hospital

Fig. 6 shows Detroit General Hospital (DGH) in 1981. It was a 560-bed, city-owned emergency hospital. Things were crazy. Patients were lying in the corridors.

The modern emergency department got its start here, under the leadership of Dr. Ronald Krome. At that time there was only one GI staff, who had just finished residency. Being new, endoscopy paid well. Those GI staff usually opened a private practice after one year at DGH.

We held surgery meetings in a conference room on the 4th floor. It resounded with all sorts of accents—Spanish, Indian, Far Eastern—unlike today, when everyone speaks very good English. At that time, it was harder for me to understand at those meetings because of all the different accents.

Research

Fig. 7 is from study involving the gastroscope showing erosion and bleeding. Stress ulcers usually develop in the proximal stomach.

I'm a devoted scientist. When I was doing experimental studies, I injected histamine in beeswax

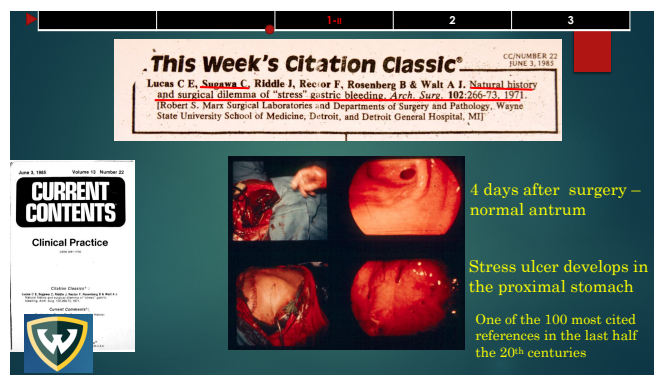


Fig. 7.

in dogs every day. During the week I had helpers — at that time, there were 10 technicians just taking care of dogs (the state had more money then!)—and the dogs were usually very friendly. But if I went in at the weekend to inject the histamine beeswax (which was very hot) without help. It was hard—and painful.

ERCP

ERCP (endoscopic retrograde cholangiopancreatography) was introduced by Dr. Itaru Oi at the ASGE meeting in 1970.

Dr. Vennis, in Minnesota, was the ERCP pioneer in this country. The Detroit Research Corporation paid for a scope and when Dr. Vennis came to the Detroit Receiving Hospital with a catheter in his pocket we watched one case to learn how to do ERCP, then we were on our own.

It was not easy. There were no pictures, no video, no books, no instruction. We published our first article in 1975¹ and our last paper in 2020.² We published altogether 22 original articles on ERCP.

SAGES

In the '70s and even into the '90's it was hard for a general surgeon to touch the flexible endoscope because it was hard to get training in it.

1 Peroral endoscopic cholangiography and pancreatography: The surgeon's helper. *Arch Surg* 109:975-979, 1975.

2 Congenital pancreaticobiliary anomalies in an urban medical center in the United States. *Journal of gastro. and hepato* 4 (2020) 1176-1182.



Fig. 8. SAGES Board in 1990

SAGES began to establish the surgeon's role in GI endoscopy in early 1980. In 1989, laparoscopic cholecystectomy was presented at SAGES.

Fig. 8 shows the SAGES board when I was its Vice President. The majority of SAGES "rappers" in **Fig. 9** later became chairs of their surgery departments. Many Japanese surgeons joined SAGES (Fig.10).

Books

I published two books with colleagues (**Fig. 11**, next page). The *Primer on Gastrointestinal Fiberoptic Endoscopy* (1981) was written with

Bernard Schuman, chief of GI at Henry Ford Hospital and chief editor of *Gastrointestinal Endoscopy*. He lived near my home and so I went to his home quite often. That book sold like hot-cakes and was translated into Italian. I received the Board of Governors Faculty Recognition Award from Wayne State University.

Gastrointestinal Bleeding was written with Dr. Lucas and Dr. Bernard Schuman. That book did not sell so well but it was also a good book.

And More Research (GI Bleeding)

Meantime, I was continuing to do experiments on GI bleeding, using dogs (**Fig. 12**). In the 1970s



Fig. 9. SAGES "Rappers"



Fig. 10. SAGES Far East



Fig. 11. Books on GI endoscopy and GI bleeding published (L to R) in 1981, 1982 (in Italian), and 1992.

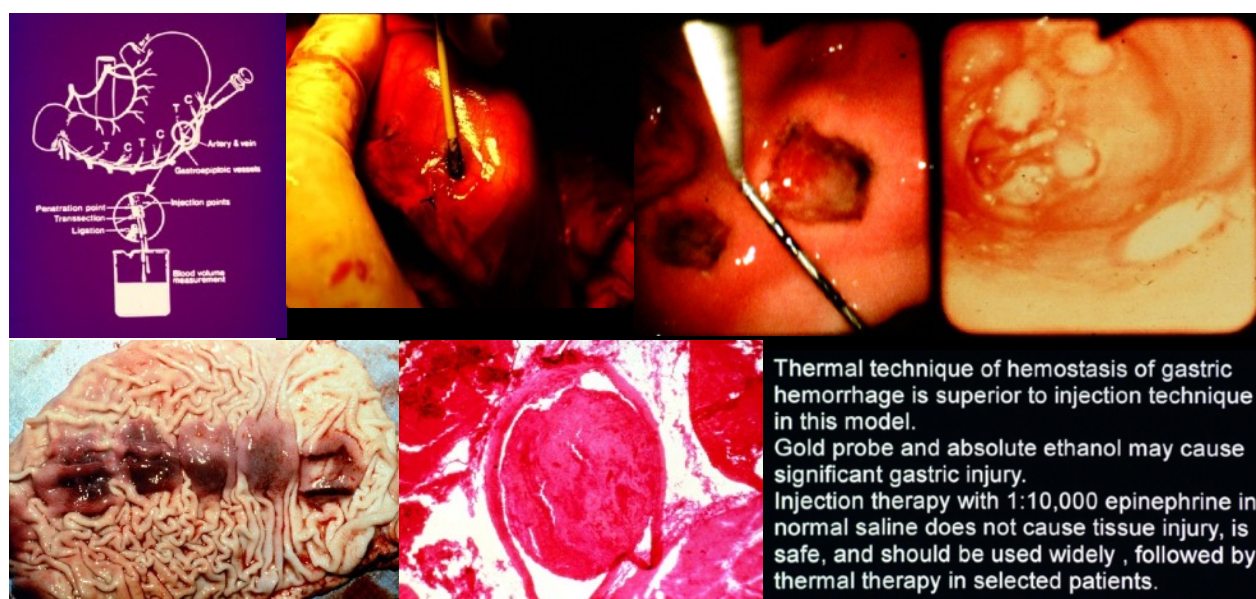


Fig. 12. Exemplary text and images from our experimental study on GI bleeding

and 80s it was relatively easy (compared to today) to use dogs. The first citation on **Fig. 14** is about our study on GI bleeding published in the *Annals of Surgery* and elsewhere.³ We presented at the American Surgical Association conference, where discussion can be endless. (Dr.

Ledgerwood became president at that meeting.) It has been cited 169 times since then.

³ See, for example, Endoscopic sclerosis of experimental esophageal varices in dogs. *Gastrointest Endosc* 24:114-116, 1978, and NIH Consensus Development Conference. Sugawa, C.: Therapeutic endoscopy and bleeding ulcers. *JAMA* 262:1369-1372, 1989.


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New requirement in flexible endoscopy

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Flexible Endoscopy Curriculum

The ABS announced in 2014 a new requirement to ensure all ABS-certified general surgeons have completed a standard curriculum in the use of endoscopic techniques. This new requirement will apply to certification **applicants who complete their residency training in the 2017-2018 academic year or thereafter.**

During their general surgery residency, applicants will be required to have completed the [ABS Flexible Endoscopy Curriculum](#) (pdf).

Fig. 13. ABS retirement for training in endoscopy.

Upper GI bleeding in an urban hospital. Etiology, recurrence, and prognosis.

[C Sugawa](#), CP Steffes, R Nakamura, JJ Sferra... - *Annals of ...*, 1990 - [ncbi.nlm.nih.gov](#)

Acute upper gastrointestinal bleeding (UGIB) continues to be a common cause of hospital admission and morbidity and mortality. This study reviews 469 patients admitted to a surgical service of an urban hospital. There were 562 total admissions because 53 patients ...

☆ ⓘ Cited by 135 Related articles All 10 versions

[Acute lower gastrointestinal bleeding in 1,112 patients admitted to an urban emergency medical center](#)

..., S Tokioka, T Yamasaki, [DA Edelman](#), [C Sugawa](#) - *Surgery*, 2009 - Elsevier

Background This study was performed to elucidate the etiology, effectiveness of diagnostic and therapeutic modalities, and outcomes in patients with acute lower gastrointestinal bleeding. Methods A retrospective review of the medical records of 1,112 consecutive ...

☆ ⓘ Cited by 160 Related articles All 9 versions

Clinical evaluation and management of caustic injury in the upper gastrointestinal tract in 95 adult patients in an urban medical center

G Tohda, [C Sugawa](#), C Gayer, A Chino, TW McGuire... - *Surgical ...*, 2008 - Springer

Background Caustic ingestion causes a wide spectrum of injuries; appropriate treatment varies according to the severity and extent of the injury. This retrospective study of adult patients with caustic injury presents the endoscopic findings, treatment regimen, and clinical ...

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[Endoscopic management of foreign bodies in the upper gastrointestinal tract: a review](#)

[C Sugawa](#), H Ono, M Taleb... - *World Journal of ...*, 2014 - [ncbi.nlm.nih.gov](#)

Foreign body ingestion is a common condition, especially among children who represent 80% of these emergencies. The most frequently ingested foreign bodies in children are coins, toys, magnets and batteries. Most foreign body ingestions in adults occur while eating ...

☆ ⓘ Cited by 169 Related articles All 9 versions

Fig. 14. Examples of GI bleeding and endoscopy-related papers by surgeons

The American Board of Surgery and Flexible GI Endoscopy

The American Board of Surgery has required training in endoscopy only since 2017–18 (**Fig. 13**), so it has taken many years to reach this point. In the 1980s, doctors in Chicago, Milwaukee, Omaha, and elsewhere would fly to Detroit for an opportunity to use the scope.

With increased use of GI flexible endoscopy by surgeons and excellent GI papers published by surgical endoscopists (**Fig. 14**) the American Board of Surgery decided to include flexible GI endoscopy as required training.

A Proud Award

Fig. 15 shows my Master Educator in Endoscopy Award. The gastroscope on the plaque is real. Dr. Ponsky is a famous surgical endoscopist who became president of SAGES (Surgery) and ASGE (GI).

Thank You All

I would like to close with thanks to the residents, colleagues, Department Chair Dr. Weaver, and the many people with whom it has been my pleasure to work over the past 52 years. Many of them are pictured in **Fig. 17** (on the last page).

Writing papers sometimes so much depends on residents. Some are so good. I don't contribute much except data and advice, yet many good papers have appeared with my name on them. I like that! I really like that!

I thank our chairs and my colleagues, past and present, for the good support I have received from the department.

I had an excellent assistant (Lucy Mozo) who helped me over 35 years.

When I reflect on my career, I think I have been very fortunate. GI endoscopy was a new and developing field that included upper GI endoscopy,



Fig. 15. SAGES 2013, Baltimore: The J Ponsky Master Educator in Endoscopy Award

ERCP, colonoscopy, and many interventional endoscopies. It was not difficult to publish papers on endoscopy. I also enjoyed the opportunity to work with residents and fellows.

My wife was and remains my strongest supporter.

The US doctors who had the biggest influence on my career are shown on the bottom row of **Fig 17**. Doctor Walt was my chairman and supported me throughout my career. He would say to me: *Yoisho!*—a Japanese expression of encouragement—to get me to work harder!

I worked with Dr. Lucas from the beginning to the end of my career in the USA. He advised and supported me. The majority of my papers were published with Dr. Lucas, and he was particularly helpful in correcting my English.

Dr. Schuman was editor of *Gastrointestinal Endoscopy* and we published two books together.

Dr. Ponsky is a famous surgical endoscopist who invited me to join his postgraduate course in Cleveland in 1980.

Since then, he has supported me through SAGES and ASGE.

Some of my Japanese colleagues are shown in **Fig. 16** below. The man in the middle was a surgical resident with me at the University of Tokyo. He is a pioneer in percutaneous cholecystoscopy and was the first doctor to perform laparoscopic cholecystectomy in Japan. Next to me in the picture is Dr. Tanaka, a surgical endoscopist and ERCP specialist. He established a method for diagnosing pancreatic cancer early.

On the far right, Dr Fujita was a GI specialist whom I have known since 1961. He is an important officer in the Japan Gastroenterological Endoscopy Society (JGES). Thanks to his support I was invited more than 40 times to JGES annual conventions.

All of these people were chairpersons. There are three ladies. The lady in red is my wife. She is my Chairman!

Thank you all very much and good luck to you!



Fig. 16. Dr. Sugawa with Mrs. Sugawa (in red) and Japanese doctors at the 2014 JGES meeting in Fukuoka, Japan.



Fig. 17. Friends and Colleagues: **Top left**—Dr. Rohan Policharia, Dr. Sugawa (March 31, 2017); **Top right**—Dr. Sugawa, astronaut, Dr. Abubaker A Ali; **Middle left**—WSUSOM Chair of Surgery Dr. Donald W Weaver (center); **Middle right**—Dr. Choichi with Lucy Mozo, his assistant in the DRH endoscopy unit since 1981 **Bottom row**, L to R—Dr. AJ Walt, Chairman, WSU Dept. of Surgery; Dr. CE Lucas, Professor of Surgery, WSUSOM; Dr. JE Ponsky, Chair of Surgery, CWU; Dr. & Mrs. BJ Schulman, former President, ASGE.

