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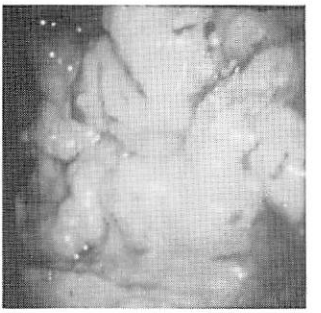
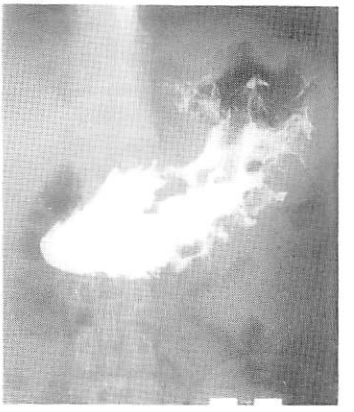
Internal Medicine



Roentgenogram showing giant rugae of the gastric mucosa.



Endoscopic picture of giant rugae of the gastric mucosa.

DEPARTMENT OF INTERNAL MEDICINE

GENERAL SUMMARY

Since the establishment of this Institute, only the department of internal medicine had over a period of ten years taken part both in clinical oncological research and in diagnosis and treatment of patients with neoplastic deseases. Without cooperation of surgeons we were confronted with many difficulties involving the ABC of diagnostic procedures for diseases. For example, even a lymph node biopsy which is now recognized as a diagnostic routine could not be carried out, to say nothing of more aggressive surgical procedures required for diagnosis of neoplastic diseases, such as diagnostic or staging exploratory laparotomy. For these reasons, the establishment of the department of surgery had long been required. Last year, fortunately, our requirement was sanctioned by the Government. Without delay, surgical activities came into operation in both clinical and investigative fields.

As the surgical department newly established makes special studies on digestive diseases, research members of our department were rearranged to be able to take part in close cooperation with each other in clinical investigation of the same field. By the courtesy of Professor Takeda, some researches who were experts in clinical gastroenterology were employed in our department. Now, broad based activities of this department came into operation. Further development of this Hospital is anticipated.

Striking differences in the risk of acquiring cancer have been noted in different populations throughout the world. Although the highest mortality and morbidity rate for gastric cancer is found in Japan and has attracted much attention of medical investigators around the world, primary carcinoma of the small intestine is a rare disorder in Japan just as in the Western countries. A few large series of clinical statistical reviews on the primary carcinoma of the small intestine reported throughout the world have been presented in Europe and America, but little information is available in which the actual status of this rare disorder in Japan is precisely described.

An attempt was made to present a complete clinical statistical review on cases of the disease which were reported in Japan. All the cases appearing in this series were gleaned from scattered clinical reports presented from various hospitals. Cases of primary carcinoma originating from the duodeno-jejunal flexure and from the mesenteric small bowel were collected and analyzed. Results obtained were compared with those from the Western countries.

Clinical reports on cases had shown a yearly increase. The incidence ranged from 0.1 and 0.3% for all carcinomas of the gastrointestinal tract.

Of 277 cases in this series, 23 occurred in the duodeno-jejunal flexure, 147 in the jejunum, and 96 in the ileum. The average age of the patients was 53.3 years, the oldest patient was 81 years old and the youngest 4 months old. Males slightly predominated over females by a ratio of 1.4 : 1. The duration of symptomatology prior to operation was less than six months in 68.4% of 190 cases. Initial symptoms and signs, being arranged in a decreasing order of incidence, were abdominal pain, unspecific gastrointestinal complaints, nausea, vomiting and bowel dysfunction. Chief complaints on admission were similar to symptoms and signs at the onset of the illness. A correct preoperative diagnosis was made in 27 (16.2%) of 167 cases. On physical examination, a palpable mass was confirmed in 43.6% of cases of jejunal carcinoma, and in 46.2% of those of ileal carcinoma. Most tumors were hen egg or smaller in size. At operation the absence of metastases was confirmed in only 29 cases. The rate of five year survival was not determined in Japanese cases.

In conclusion, no significant differences were found between cases of the small bowel carcinoma in Japan and those in the Western countries, except that the five year survival rate seemed to be higher in the latter than in the former.

Giant hypertrophy of the gastric mucosa may be one of the most important gastric diseases associated with hypoproteinemia. Mechanisms of development of hypoproteinemia in protein-losing gastropathies have not been throughly elucidated. In order to clarify whether any changes exist or not in patients with protein-losing gastropathy, investigations on the function and histopathology of the small bowel have been done. From the results the question arose whether Menetrier's disease with severe hypoproteinemia is a disease limited to the stomach. But Menetrier's disease associated with severe hypoproteinemia is so rare that out investigation is making slow progress.

Dr. Honda measured fasting serum gastrin levels in patients with abnormal thyroidal function and investigated the relationship between gastrin secretion and various clinical parameters of thyrotoxicosis. And furthermore the relationship between fasting serum gastrin levels and gastric acid secretion and/or mucosal changes were explored in thyrotoxicosis clinically and experimentally.

From the results obtained, it can be concluded that the high fasting serum gastrin level in thyrotoxic patients is a reflection of a negative feedback nechanism in response to the reduction of acid secretion due to atrophic changes in the gastric mucosa.

The studies on gastrin by Honda were carried out in the 2nd Department of Internal Medicine, School of Medicine, Kanazawa University. He now has a position in our department. Further development in his investigation are expected.

ABSTRACT

(54) Studies on protein-losing gastropathy.

K. Kurakane and K. Morinaga

Menetrier's disease is well characterized clinically and pathologically. A severe hypoproteinemia may often be found in this disease. Although the stomach has been shown to be the site of protein loss, proteins once lost into the stomach are catabolized and reabsorbed in the small bowel, and made available to the body for resynthesis of proteins. When functions of other organs remain in a healthy state, hypoproteinemia will not easily develop. Based on this hypothesis we have investigated functions and histology of the small bowel in protein-losing gastropathy.

Materials and methods: 15 cases of protein-losing gastropathy were evaluated for this purpose. Of the 15 cases there were 2 Menetrier's diseases, 8 suspected Menetrier's disease, 3 erosive gastritis, and 2 gastric polyposis. Simultaneous determination of ^{131}I-PVP loss in the stomach and of that in the small bowel, and histological examination of the jejunal mucosa obtained by biopsies in the same patients with protein-losing gastropathy have been carried out. The specimens obtained were examined under light and electron microscopes.

Results: Results of the modified Gordon's test are shown in Table. The jejunal mucosa in 4 cases (No. 5, 7, 11 and 14) showed slight pathological findings under the light microscope, but that was the only case (No. 2) in which Menetrier's disease exhibited findings of protein loss into the small intestine under the electron microscope.

Conclusion: Histological evidence of protein loss from the jejunal mucosa was confirmed in only one patient with severe Menetrier's disease.

Table. Patient with protein-losing gastropathy

	Case	Sex	Serum protein (g/dl)	Modified Gordon's test			Diagnosis
				Gastric excretion ratio (%)	Intestinal excretion ratio (%)	Total excretion ratio (%)	
1	Y.K.	M	6.1	2.1	1.3	3.4	M.D.
2	S.Y.	M	6.6	29.4	1.3	30.7	M.D.
3	T.T.	M	7.4	2.6	0.4	3.0	M.D. (S)
4	S.G.	M	6.0	1.3	0.2	1.5	M.D. (S)
5	H.T.	M	7.6	3.8	0.4	4.2	M.D. (S)
6	T.Y.	M	6.4	2.4	0.2	2.5	M.D. (S)
7	Y.I.	M	6.9	0.5	1.1	1.6	M.D. (S)
8	M.Y.	F	7.2	0.5	1.4	1.8	M.D. (S)
9	K.I.	F	5.6	0.8	0.9	1.7	M.D. (S)
10	T.N.	F	7.1	1.9	0.1	2.0	M.D. (S)
11	G.H.	M	4.7	6.1	7.5	13.6	E.G.
12	S.O.	M	7.0	5.7	0.4	6.1	E.G.
13	K.M.	F	5.4	1.3	0.3	1.6	E.G.
14	S.K.	M	6.0	4.9	4.7	9.6	C.G. & G.P.
15	M.T.	F	7.8	5.2	1.0	6.2	G.P.

M.D. : Menetrier's disease, M.D. (S) : Suspected Menetrier's disease,
E.G. : Erosive gastritis, C.G. : Chronic gastritis,
G.P. : Gastric polyposis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