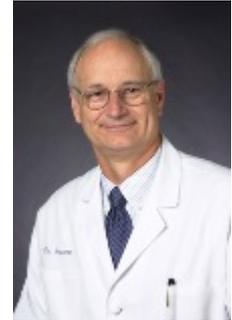


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Since 1998 the Japanese Society of HBP Surgery has chosen a newly trained HBP surgeon to participate in an international observership in the USA. The Observership was the idea of Professors Fujio Hanyu and Tadahiro Takada. They invited Professor Howard Reber and myself to attend a dinner meeting in Tokyo where the four of us entertained ideas how young Japanese surgeons might benefit from spending two years in the USA learning how to use the English language. To be more specific - how to understand, speak, write, and answer questions in English. In this way the interchange of ideas between Japan and the USA would be embellished for the future. The young surgeons would be our ambassadors to improve relationships and facilitate the exchange of global information regarding surgery as well as highlighting our unique cultural differences.

As of 2015 I have greeted and worked with 9 young Japanese surgeons, almost all of them spent one year with me before moving to one of the other two sites. Together, working in Seattle and Boise, we have published 21 journal articles and book chapters while analysing almost a thousand of my own pancreatic neoplasm resection cases plus hundreds of acutely ill patients with severe pancreatitis. These 9 surgeons have also studied from 6 months to a year at UCLA with Howard Reber and at Mayo Clinic with Michael Sarr and Michael Farnell. Please read the “messages” from these other three participating surgeons from the USA.

The following summary of the work by these 9 Japanese surgeons provides a journey into our understanding of pancreatic disease as provided by their diligent work. See the Observership CV for further reading.

Pancreatic Cancer - Before treatment the survival of patients was best predicted by CT images showing abutment on any major artery or extension through the anterior pancreatic head; better than abutment onto the PV/SMV or dorsal pancreatic head. (Taoka) The first publication of the Picozzi interferon (IFN) adjuvant chemoradiation protocol was encouraging as we compared the IFN protocol versus the GITSG protocol (5FU/Radiation) - after a mean f/up of 26 months the 2 year survival time was the IFN

84% vs GITSG 54%. (Nukui) Exocrine insufficiency is present in 86% of these patients at presentation. In the remaining few almost all of them will be insufficient after resection (Matsumoto). Familial pancreatic cancer registries have discovered early patterns of detection while following these high risk patients. At the Kyoto Pancreas Cancer 2012 conference it was justified to establish a Familial Pancreas Cancer Registry in Japan (Wada).

IPMN – Mucus in the pancreatic duct was found to be a predictor of survival (Kitagawa). The 5 year survival of was found similar between resected invasive IPMN versus matched controls with invasive pancreatic adenocarcinoma (Wada). To help to decide when to resect an IPMN lesion required the best predictors of malignancy. These predictors were determined to be the duration of symptoms and the likelihood of main pancreatic duct involvement (Moriya, Hashimoto). A Level II Cohort trial after resection of IPMN lesions showed the pancreatic remnant developed new lesions slowly if at all - only 8% of cases after a 40 month follow-up (Moriya). Understanding the natural history of IPMN can provide guidelines for the frequency of imaging or to prevent invasive cancer with a timely resection.

Surgical Technique – After pancreaticoduodenectomy (PD, or the Whipple operation) the relationship of volume of fluid and fluid amylase concentration from surgical drains was found useful to be objective in defining a leak from the pancreatic anastomosis (Shinchi, Wada) and was later used to develop the international definition of postoperative pancreatic fistula (POPF). Using POPF and delayed gastric emptying (DGE) as outcomes we found in two separate studies that use of the surgical microscope significantly lowered POPF particularly when a small duct <3 mm was present (Wada 2006, Hashimoto 2010). A web-based calculator was created and used to standardize and implement the international definitions of DGE and POPF in 507 PD cases (Hashimoto). In regards to the ever present persistent high risk leakage from the pancreatic stump after distal pancreatectomy a high relationship was discovered between leak and back pressure in the ductal system probably due to increased sphincter pressure in the postoperative period from IV narcotics (Hashimoto).

Severe Pancreatitis – This disease is misunderstood and is associated with a high mortality using current open necrosectomy. Using hundreds of actual cases with this disease it was discovered that the presence of free amylase in the peripancreatic area was a predictor of severe disease and that control of this leakage with effective minimally invasive drainage might stop necrosis or infection. Effective drainage was found to require application of a protocol founded on principles of maintaining drain

patency – this required frequent and planned drain exchanges or upsizing. In one of the largest series published we observed zero hospital mortality with the early intervention of our CT-guided percutaneous drainage protocol (Sugimoto).