Unveil the Invisible Cloak - Pancreas

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In 2011, we encountered a 60-year-old female patient, who was identified as a hepatitis B carrier when she was 30 and had an acute exacerbation of hepatitis 4 to 5 years ago. Since the virus load went over a million, she underwent 3-year antiviral therapy and, once stabilized, was placed on observation with routine blood test and abdominal ultrasound screening for liver cancer.

Identify Lesion with Endoscopic Ultrasound

During a routine ultrasound last October on gall bladder, kidney, pancreas and spleen, pancreatic duct appeared to have dilated. Pancreatic duct dilation is abnormal, so although it was not symptomatic at the time, I immediately arranged a magnetic resonance cholangiopancreatography and found no concretions and tumors. I recommended her to keep it under close monitoring, and told her to come back if she feels any upper abdominal pain that radiates to the back.

The patient experienced a sudden upper abdominal pain which radiated to the back in December. She came to the ER of our hospital and contacted me immediately. She was found to have elevated liver function and lipase level, which prompted me to perform CT scan. Again, we only found dilated pancreatic duct and no signs of tumor. I decided to have

Dr. Hsien-Hong Lin, experienced and diligent, is examining the patient.

her hospitalized for further tests. We arranged endoscopic ultrasound while she was hospitalized, a test where the ultrasound probe, attached to the front of the endoscope, is inserted into the gastrointestinal tract for a thorough examination, which significantly enhance the diagnosis of lesions of abdominal organs such as pancreas and bile ducts. These kind of advanced examinations require special training to operate. Due to its long duration, the procedure is often performed under intravenous anesthesia to remove the patient's discomfort.

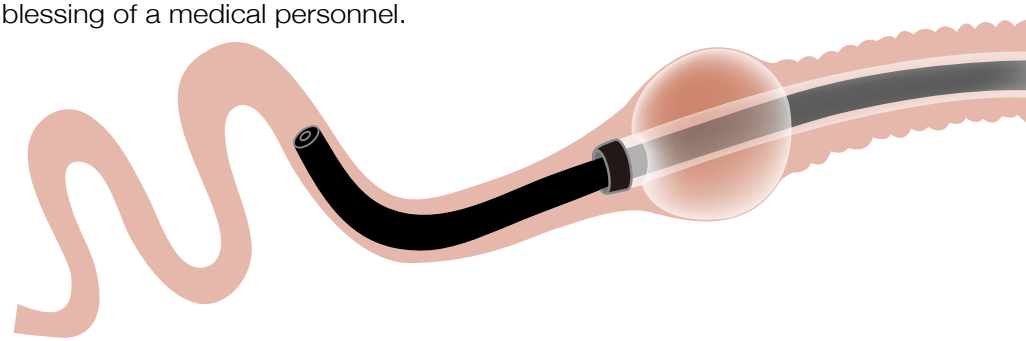
Director Chien-Hua Chen and Dr. Tsung-Hsien Hsiao of the examination room, experts in this field, collaborated with the anesthetists to discover a 2 cm tumor on a hook-like bulge at the pancreatic head, a location fairly discrete in terms of pancreatic tumors. We informed Director of Surgery Dr. Chao-Chun Wu who, a thorough person that he is, summoned a meeting with Radiologist Dr. Cheng-Yi Chan and our division, and reviewed every single clinical examination results and images. A surgery was arranged after we all agreed with the diagnosis of pancreatic head cancer. The surgery for pancreatic head cancer, currently the most complex and elaborate one in digestive surgeries, requires the surgical removal of the pancreatic head, duodenum, gallbladder, bile duct, and the bottom half of the stomach. Fortunately, under the experienced hands of Director Wu's team, the surgery was a success. The pathology report

confirmed the early stage of pancreatic head cancer, confined within the pancreatic membrane and showed no signs of lymph node metastasis. The patient soon recovered, discharged, and is now on follow-up.

Teamwork to Locate the Unseen Nidus

Pancreas is located in the innermost region of upper abdomen, a vital organ that digests fats and protein. Because of its unique location, a thorough examination is difficult with palpation and ultrasound alone. Cancer, if present, would cause upper abdominal pain that radiates to the back in its later stages. Once terminal, it can lead to loss of appetite and weight, biliary or intestinal obstruction, and the consequence is usually lethal. Cancer in its initial stages has obscure symptoms, without specific high-risk groups and lack effective screening methods, which makes early detection a challenge. “CA19-9” claims to be a marker of pancreatic cancer, but both its sensitivity and specificity are poor, meaning CA19-9 could be low when the cancer is present, or high when the cancer is not present. It can only serve as an indicator during postoperative follow-up if CA19-9 is high when pancreatic cancer is diagnosed. Clinically, though, even if pancreatic cancer is symptomatic, surgery, the only chance of cure, is often too late. Chemotherapy is only partially effective, and there are no specific target agent, the prognosis of pancreatic cancer is often poor.

Fortunately, a diagnosis was made with effective diagnostic tools and a team of experts allows the patient to recover to health. The case illustrated the diagnostic and therapeutic capacity of Taipei Tzu Chi Hospital and the collaboration among the division of digestion, radiology, anesthesia and surgical team can compete with any medical centers. Working in an environment such as this, dedicate to solving patients’ issues, is the greatest blessing of a medical personnel.



Enteroscope that integrates capsule endoscope is about 200 cm. It can advance deep into the intestine for diagnosis and treatment.