

Early detection of malignant tumours in the oesophagus using high-resolution endoscopy

Around 20 per cent of all adult Germans have acid reflux every day; another 40 per cent suffer from it occasionally. Heartburn is a widespread condition triggered mainly by food that is too rich and greasy and by excessive consumption of alcohol and nicotine. Usually classified as harmless, heartburn can have severe consequences including, in the worst case, cancer. If malignant tumours are found early, they can be treated and cured using endoscopic methods.

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The Reflux Centre at the Vivantes Hospital in Spandau is equipped with the latest medical technology for diagnosing heartburn and treating any related complications. An area on which the centre particularly focuses is detecting malignant tumours in the oesophagus as early as possible using high-resolution endoscopy (HDTV). By using endoscopic removal of early-stage cancers in the oesophagus, an operation can now be avoided in many cases. Moreover, a new endoscopic procedure and radio frequency energy can be used to treat mucous membrane affected by heartburn so that such tumours do not appear in the first place.

Led by Dr Alexander Seelhoff, a Barrett's ablation was performed for the first time in the Vivantes Hospital in Spandau in 2011. In this procedure, radio frequency waves were used to remove the mucous membrane of a person suffering from Barrett's oesophagus – a condition in which the oesophagus is attacked by an excess of gastric acid and has the potential to develop cancer cells. Patients with a Barrett's oesophagus frequently have heartburn and the mucous membrane is affected in such a way that the cells may develop into precancerous cells or actual cancer cells.

The Vivantes hospital network was one of the first centres in Germany to use this innovative and non-invasive procedure. Successful treatment usually means that the patient is no longer at an increased risk of cancer of the oesophagus.

“The radio frequency ablation method, known as the HALO procedure, allows the diseased mucous membrane to be removed very gently using an endoscope,” explains Dr Alexander Seelhoff. “This procedure barely causes any discomfort for patients. Normally, two to three gastroscopies are required to treat the entire area of affected mucous membrane. Afterwards, healthy tissue can grow again.”

This procedure is now very widespread in the United States and many European countries. It constitutes the standard treatment for patients in which early-stage malignant changes have taken place in the mucous membrane of the oesophagus.

The Department for Gastroenterology at the Vivantes Hospital in Spandau also diagnoses and treats diseases of the oesophagus and gastrointestinal tract, liver, biliary tract and pancreas. Examples of the procedures used are oesophagogastroduodenoscopy (endoscopic examination of the oesophagus, stomach and duodenum), colonoscopy (examination of images of the intestine) including interventional procedures such as the ablation of polyps, haemostasis, dilatation and bouginage therapy, insertion of prostheses (stents), argon plasma coagulation, Zenker mucomyotomy (ablation of a protrusion in the hypopharynx),

ERCP with papillotomy, stone extraction, insertion of prostheses, photodynamic therapy, endosonography including interventions controlled by endoscope, abdominal sonography with colour Doppler and contrast-medium examinations and controlled puncture.

Manometry, pH monitoring and impedance measurement are also carried out as part of gastrointestinal functional diagnostics. Dedicated gastroenterological consultations give patients with liver disease and chronic inflammatory intestinal diseases an opportunity to find out about diagnosis and therapy options.