

## Endoscopic ultrasound: past, present and future

### Ultrasonografía endoscópica: pasado, presente y futuro

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Since the development of EUS in the 1980s, dramatic changes have occurred and EUS has advanced its role from an “expensive toy” for a few experts to an indispensable tool of a modern endoscopy unit.

Initially designed for the purpose of diagnosis of gastrointestinal tract and biliopancreatic tract, EUS is technologically evolving with the development of better probes allowing greater detail images and better viewing of adjacent structures. In 2002, Michael V. Sivak Jr. wrote in his editorial that EUS represents the first great advance in diagnostic gastrointestinal endoscopy in the last 200 years.

At first, the purpose of diagnostic intention was the goal of endoscopic ultrasound. Evaluation of subepithelial lesions and bilio-pancreatic diseases were the focus. With the introduction of fine needle, the diagnostic limitation of endoscopic ultrasound was surpassed for the acquisition of tissue sample allowing a pathological diagnosis that associated with morphological features bring up the best approach to the patient.

Nowadays, the diagnostic endoscopy ultrasound shares space with the therapeutic endoscopy ultrasound (T-EUS) due to the development of catheters and punctured needles, guidewires, dilators, cystostome and prostheses which allow therapeutic intervention in biliopancreatic tract disorders that have not been resolved by ERCP and with less morbidity to the patients compared to surgical approach.

Neurolysis of celiac trunk, embolization of vessels, draining collections and bilio-pancreatic fistulas/rendez-vous, urologic procedures, EUS-NOTES and intratumoral injection of chemotherapy are examples of therapeutic procedures involving EUS.

Nevertheless, the future of EUS is associated with the development of new accessories that allows safe and effective access to other cavities and more distant collections, new sclerosing substances, prostheses, commitment of professionals seeking at new EUS techniques and for sure will determine a new era for endoscopy and its challenges.