ANX ROBOTICA

Converging Robotics & AI...a new vision of GI diagnostic & therapeutic excellence

BIBLIOGRAPHY

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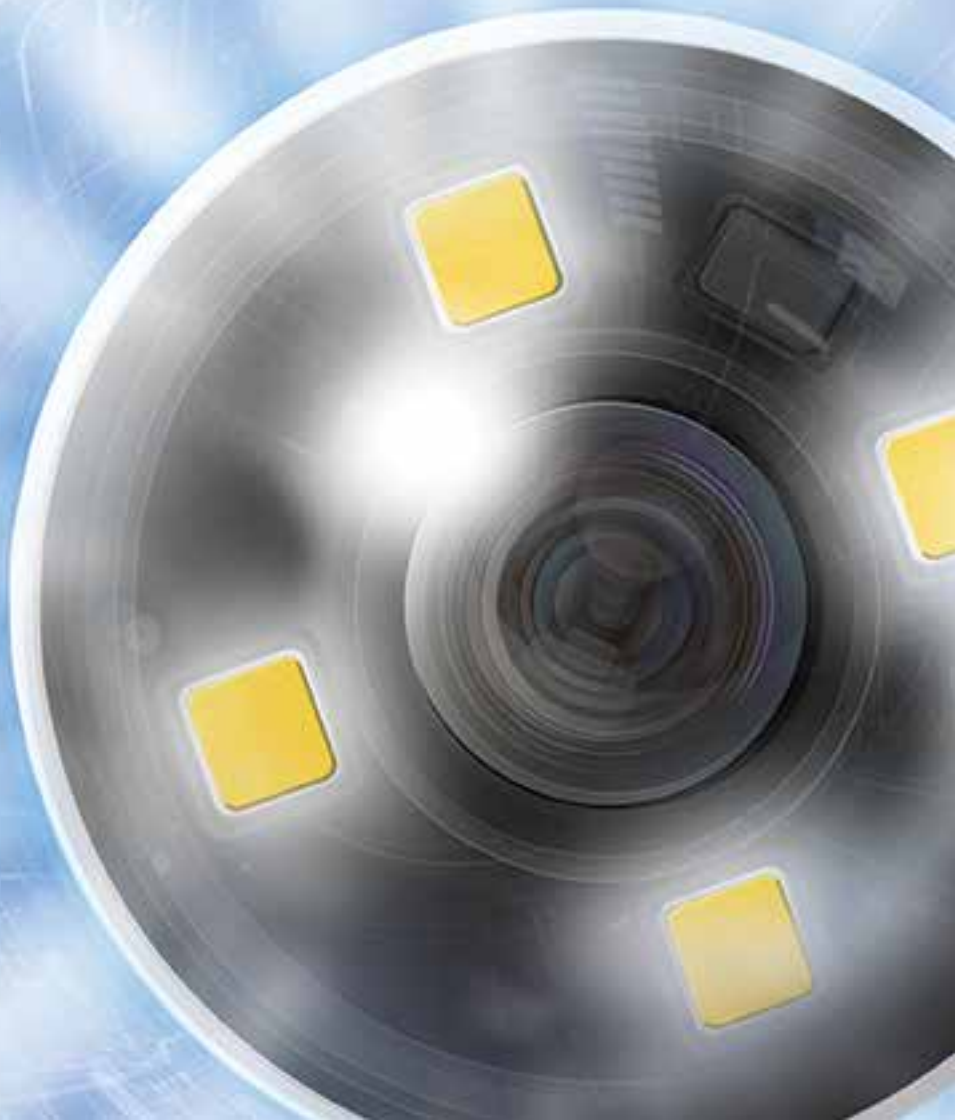

NAVICAM® STOMACH MAGNETICALLY CONTROLLED CAPSULE ENDOSCOPY

Zhao AJ., Qian YY., Sun H., et al. ***Screening for gastric cancer with magnetically controlled capsule gastroscopy in asymptomatic individuals. Gastrointestinal Endoscopy 2018; 88:466-474***

Conclusions:
MCCG can detect cancer and benign lesions and is safe and clinically feasible in a large population. Studies of its role in a screening program should be considered.

Liao Z., Hou X., et al. ***Accuracy of Magnetically Controlled Capsule Endoscopy, Compared with Conventional Gastroscopy in Detection of Gastric Diseases; Clin Gastroenterol Hepatol 2016; 14:1266–73***

Conclusion:
Magnetically Controlled Capsule Endoscopy detects focal lesions in the upper and lower stomach with comparable accuracy with conventional gastroscopy. MCE is preferred by almost all patients, compared with gastroscopy, and can be used to screen gastric diseases without sedation.

Zhang S., Sun T., Xie Y., et al. ***Clinical Efficiency and Safety of Magnetic-Controlled Capsule Endoscopy for Gastric Diseases in Aging Patients: Our Preliminary Experience: Dig Dis Sci 64,2911-2922 (2019)***

Conclusions:
Our preliminary data support that MCE offers considerable benefit and is general safe for the elderly. We hope such data promote greater awareness of innovative attempts for the specific elderly, and expect multi-center, large-scale trials with randomized controlled design bring optimized strategies for better gastric visibility, efficacy and lower potential risk.

Luo YY., Pan J., Chen YZ., et al. ***Magnetic Steering of Capsule Endoscopy Improves Small Bowel Capsule Endoscopy Completion Rate; Dig Dis Sci 64, 1908-1915 (2019)***

Conclusions:
Magnetic steering of capsule endoscopy improves small bowel CECR by reducing GTT, adding further support to MCE as a practical tool for noninvasive examination of both the stomach and small bowel.

Zou, WB., Hou, XH., Xin, L., et al. ***Magnetic-controlled capsule endoscopy vs. gastroscopy for gastric diseases: a two-center self-controlled comparative trial; Endoscopy 2015; 47(06): 525-528***

Conclusions:
MCE showed a diagnostic accuracy similar to that of standard gastroscopy. These results suggest that MCE is a promising alternative to gastroscopy for noninvasive screening of gastric diseases.

Qian Y-Y., et al. ***Preliminary study of magnetically controlled capsule gastroscopy for diagnosing superficial gastric neoplasia. Digestive and Liver Disease, Volume 50, Issue 10, P1041-1046, October 01, 2018***

Conclusions:
With good gastric preparation and careful examination of stomach, MCCG is able to detect superficial gastric neoplasms.

Jiang, X., Pan, J., et al. ***Standardized examination procedure of magnetically controlled capsule endoscopy, VIDEOGIE, 2019 May 30;4(6) 239-243***

Pan J et al. ***Noncontact endoscopy for infection-free gastric examination during the COVID-19 pandemic. VIDEOGIE, Volume 5, No. 9: 2020***

NAVICAM® SB

Ding Z., Shi H., et al. ***Gastroenterologist-Level Identification of Small-Bowel Diseases and Normal Variants by Capsule Endoscopy Using a Deep-Learning Model: Gastroenterology 2019;157:1044–1054***

Conclusions:
We validated the ability of a CNN based algorithm to identify abnormalities in SB-CE images. The CNN-based auxiliary model identified abnormalities with higher levels of sensitivity and significantly shorter reading times than conventional analysis by gastroenterologists. This algorithm provides an important tool to help gastroenterologistsanalyze SB-CE images more efficiently and more accurately.

Luo YY., Pan J., Chen YZ. et al. ***Magnetic Steering of Capsule Endoscopy Improves Small Bowel Capsule Endoscopy Completion Rate; Dig Dis Sci 64, 1908-1915 (2019)***

Conclusions:
Magnetic steering of capsule endoscopy improves small bowel CECR by reducing GTT, adding further supportto MCE as a practical tool for noninvasive examination of both the stomach and small bowel.

NAVICAM® UGI–DETACHABLE STRING MAGNETICALLY-CONTROLLED CAPSULE ENDOSCOPY

J. Song, T. Bai, L. Zhang, X.-L. Xiang, X.-P. Xie, X.-H. Hou; ***Better view by detachable string magnetically controlled capsule endoscopy for esophageal observation: a retrospective comparative study: Diseases of the Esophagus, Volume 33, Issue 4, April 2020, doz104***

Summary:
Detachable string MCE has better performance for observing the different esophageal segments, especially the middle and lower esophagus and Z-line. Further measures are needed to improve viewing of the upper and lower esophagus and Z-line by detachable string MCE. Detachable string MCE allowed the detection of more esophageal focal lesions and is a promising alternative tool for screening for esophageal diseases.

Wang S, Huang Y., et al. ***Detachable string magnetically controlled capsule endoscopy for detecting high-risk varices in compensated advanced chronic liver disease (CHESS1801): A prospective multicenter study; https://doi.org/10.1016/j.lanwpc.2020.100072***

Conclusion:
In conclusion, DS-MCCE was an accurate, safe alternative to EGD for detecting HRV in patients with cACLD. In addition, DS-MCCE was better tolerated and thus may be indicated for those unwilling or unable to undergo EGD screening for HRV.

Xiu H., Lu Y., Lui, X., et al. ***Detachable string magnetically controlled capsule endoscopy for complete observation of the upper gastrointestinal tract: Eur J Gastroenterol Hepatol. 2020, Sep 17.doi:10.1097***

Conclusions:
DS-MCCE is feasible and well tolerated in the diagnosis of gastroesophageal diseases. For people who cannot stand conventional EGD or with contraindication of EGD, DS-MCCE may be an excellent alternative screening modality.

Chen ZY., Pan J., Luo YY.; et al. ***Detachable string magnetically controlled capsule endoscopy for complete viewing of the esophagus and stomach; Endoscopy 2019; 51(04): 360-364***

Conclusions:
DS-MCE was a feasible, safe, and well-tolerated method for viewing the esophagus and proceeding with gastric examination after string detachment.

ABOUT ANX ROBOTICA

OUR HISTORY

Headquartered in Plano, Texas, AnX Robotica brings versatility in development and integration of multi-discipline technologies. Technologies such as precise magnetic control, in house ASIC design, artificial intelligence, micro-optical imaging, image processing, and wireless transmission. With more than 200 patents granted or applications pending, and dozens of clinical papers published in major international journals, AnX Robotica, together with its sister companies, have become a leading robotic capsule technology company.

Our company's roots go back to 2008, when our founders began designing and building the basic Robotic Capsule Endoscopy technology in Silicon Valley. With the vision to develop and manufacture advanced medical devices for diagnosing and treating digestive diseases, they subsequently established ANKON Medical Technologies in 2009. ANKON became the first company in the world to commercialize a "Magnetically Controlled Capsule Endoscope System." In 2019, U.S. based AnX Robotica established a commercial agreement to share products and technologies.

THE NAVICAM® STOMACH SYSTEM

In May of 2020, FDA granted AnX Robotica the De Novo request for the NaviCam® Stomach System, the world's first commercialized robotic control platform for stomach visualization. The NaviCam® Stomach System utilizes advanced robotic technologies combined with innovative and intelligent software to give medical practitioners external robotic control of capsules inside the human body.

AnX Robotica's NaviCam® Stomach System has achieved a medical milestone by enabling the ability to do a stomach examination with a minimally invasive, patient-friendly procedure while giving the physician complete control. By simply swallowing a pill-sized capsule, patients can undergo a thorough stomach examination with no sedation.

THE NAVICAM® PLATFORM– A GLIMPSE INTO THE FUTURE

In addition to the NaviCam® Stomach System, AnX Robotica also markets IntraMarx® and IntraMarX® 3D Radiopaque Markers in the US. Outside the US, AnX Robotica markets the NaviCam® SB System for Small Bowel and NaviCam® UGI for upper GI studies. In current development are other relevant technologies such as the NaviCam® Colon and VibraBot™, a capsule for the treatment of constipation, and other products.

With the innovation of the NaviCam® Platform, AnX Robotica has developed a new way for visualization of the stomach with comparable performance to gastroscopy or EGD for the stomach–the gold standard.

NaviCam® Stomach Capsule

NaviCam® Stomach System

AnX Robotica
6010 W. Spring Creek Pkwy
Plano, TX 75024
469.606.9495
info@anxrobotics.com