

A Novel Portable Digestive Endoscopy



Shanghai Changhai Hospital, China

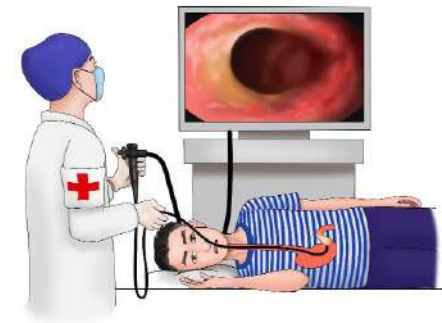
Ankon Medical Technologies (ShangHai) Co. LTD



Background



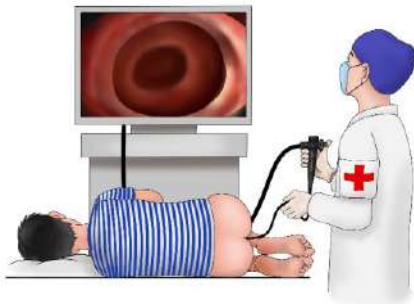
- Endoscopy is the main tool in diagnosis and treatment for digestive diseases
- Conventional endoscopy requires a large area, hydroelectric power, and a complex disinfection process



Ulcers



Bleeding



Piercing Repair



Hemostasis





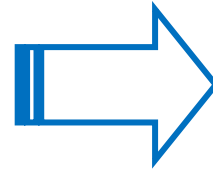
We developed a "trolley case" portable endoscopy system



Conventional endoscope

Size: 84×68×200 cm, 200kg

Unportable



Portable, size: 68×42×32 cm, 35 kg

Working time: > 4hours after charging

Assembly time: ≤5min



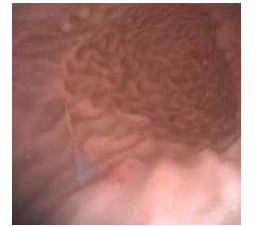
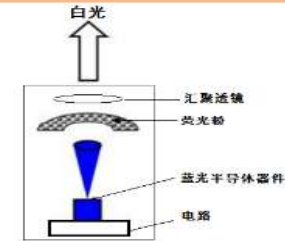
Key technologies



We tackled three key technologies

High definition Imaging

High-speed and real-time image processing methods



Highly Integrated

Complete functionality and 1/10th the size of conventional endoscopes



Sterilization-free

Disposable protective sleeve design for full body protection





Achievements



We obtained 8 Chinese patents and 2 registration certificates



Head: Prof. Zhuan Liao
President of Changhai
hospital

实用新型专利证书

实用新型名称: 便携式呼吸机

发明人: 申卓南, 王浩, 王浩, 王浩

专利号: ZL 2017 2 1923225.2

专利申请日: 2017年12月29日

专利权人: 上海安翰医疗技术有限公司

实用新型专利证书

实用新型名称: 一种便携式呼吸机

发明人: 申卓南, 王浩, 王浩, 王浩

专利号: ZL 2017 2 1923226.2

专利申请日: 2017年12月29日

专利权人: 上海安翰医疗技术有限公司

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发明专利证书

发明名称: 一种便携式呼吸机

发明人: 申卓南, 王浩, 王浩, 王浩

专利号: ZL 2019 1 122266.2

专利申请日: 2019年11月22日

专利权人: 上海安翰医疗技术有限公司

发明专利证书

发明名称: 一种便携式呼吸机

发明人: 申卓南, 王浩, 王浩, 王浩

专利号: ZL 2018 2 209261.0

专利申请日: 2018年10月26日

专利权人: 上海安翰医疗技术有限公司

中华人民共和国医疗器械注册证

注册证编号:	沪械注准 2022080160
注册人名称:	上海安翰医疗技术有限公司
注册人住所:	中国(上海)自由贸易试验区金耀路2218号1楼
生产地址:	中国(上海)自由贸易试验区金耀路2218号1楼
代理人名称:	/
代理人住所:	/
产品名称:	电子雾化气道内窥镜
型号、规格:	AP5-2
结构及组成:	产品由镜体、操作部以及导光镜头部组成。
适用范围:	配合本公司生产的由内窥镜用摄像头及光源(型号: AP5-1、AP5-2)组成的系统中使用,通过摄像头提供雾化气道(不包括十二指肠)的图像用于观察、诊断、摄影或治疗。
附件:	产品技术要求
其他内容:	/
备注:	/

ZL 201911122266.2; ZL 2018220926140.5; ZL 201911122269.6





Clinical trials

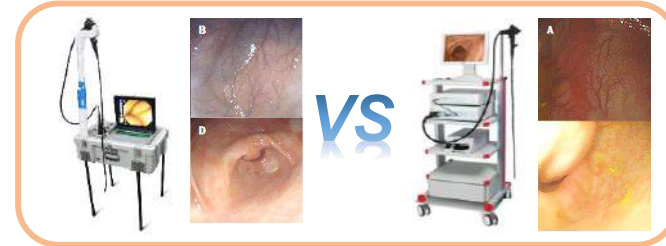


Compared with the best conventional endoscope

Short preparation time



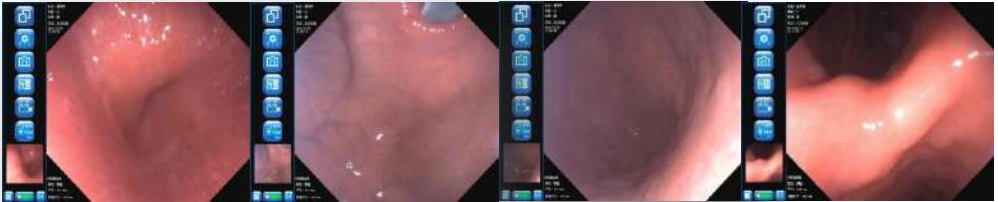
Excellent image quality



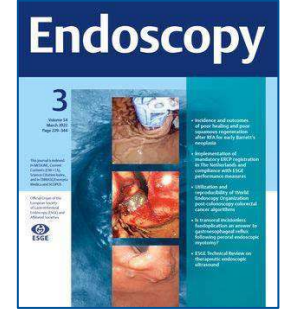
High safety



Portable Endoscopy



Olympus Endoscopy



Top journal
IF=10.4

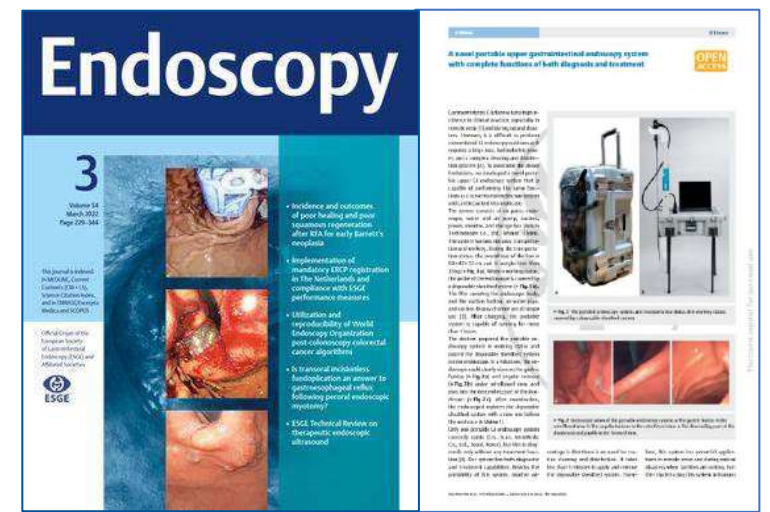
No significant difference in performance between two groups



Achievements



- **1st Prize** of Shanghai Science and Technology Innovation Competition
- **1st Prize** of Outstanding Paper of Far Sea Medical Rescue Forum
- Research results were reported by **Endoscopy journal (IF=10.2)**





Current applications



Over 200 cases with portable endoscope



**South China Sea island
24 cases and two with
GI bleeding treatment**



**Offshore vessel
10 cases during
sailing**



**Overseas medical rescue
20 cases in Indonesia and
Africa**



**Primary hospitals in
remote area
Over 160 cases**



Future application scenarios



- Disaster and emergency rescue
- Patients with infectious diseases
- Rural distressed and remote area
- Island and offshore vessel



Portable, free of disinfection and cheap with complete functions