Zhang knife is a magical knife! This knife was designed by Zhang Jianguo, a doctor from China. Using this knife, he proposed a new method of endoscopic resection, endoscopic sub mucosal resection (ESR): the endoscope does not have a transparent cap, and there is no need to dive into the submucosa, but only need to insert the Zhangknife into the submucosa and cut continuously the submucosal tissue. The operational steps include: firstly by marking the lesion, followed by submucosal injection, making an incision about 0.5-1.0 cm long outside the lesion's right marking point and then the Zhangknife is along the incision was inserted into the submucosa and the submucosa was cut from right to left and proximal to distal. In this process, note that the zhangknife head is always axially parallel to the gastrointestinal wall, so that it is possible to avoid damage to the muscularis propria to avoid perforation. The methods of using the Zhang knife are:

1) The endoscope does not dive into the submucosa, but from the macroscopic and moderate distance to observe and judge whether the knife head is parallel to the muscularis propria? If it is parallel, it will be cut; if it is not parallel, it will be made parallel by knife head direction rotation, knife wire bending direction, endoscope knobs and endoscope body adjustment; According to the situation in the cutting process, adjust timely, the length of the knife wire and the distance between the endoscope and the lesion for optimal cutting efficiency and safety.

3) Current mode uses continuous cutting current instead of intermittent stripping current. Continuous cutting is used instead of intermittent dissection and carve.

Biography

Zhang Jianguo has completed his PhD from Liaoning Medical University and Postdoctoral studies from Ningxia Medical University. He is the Director of the Department of Gastroenterology in Aviation General Hospital of China Medical University. He has published more than 21 papers in reputed journals and has been serving as an Editorial Board Member of repute. He has owned 25 patents in China.