

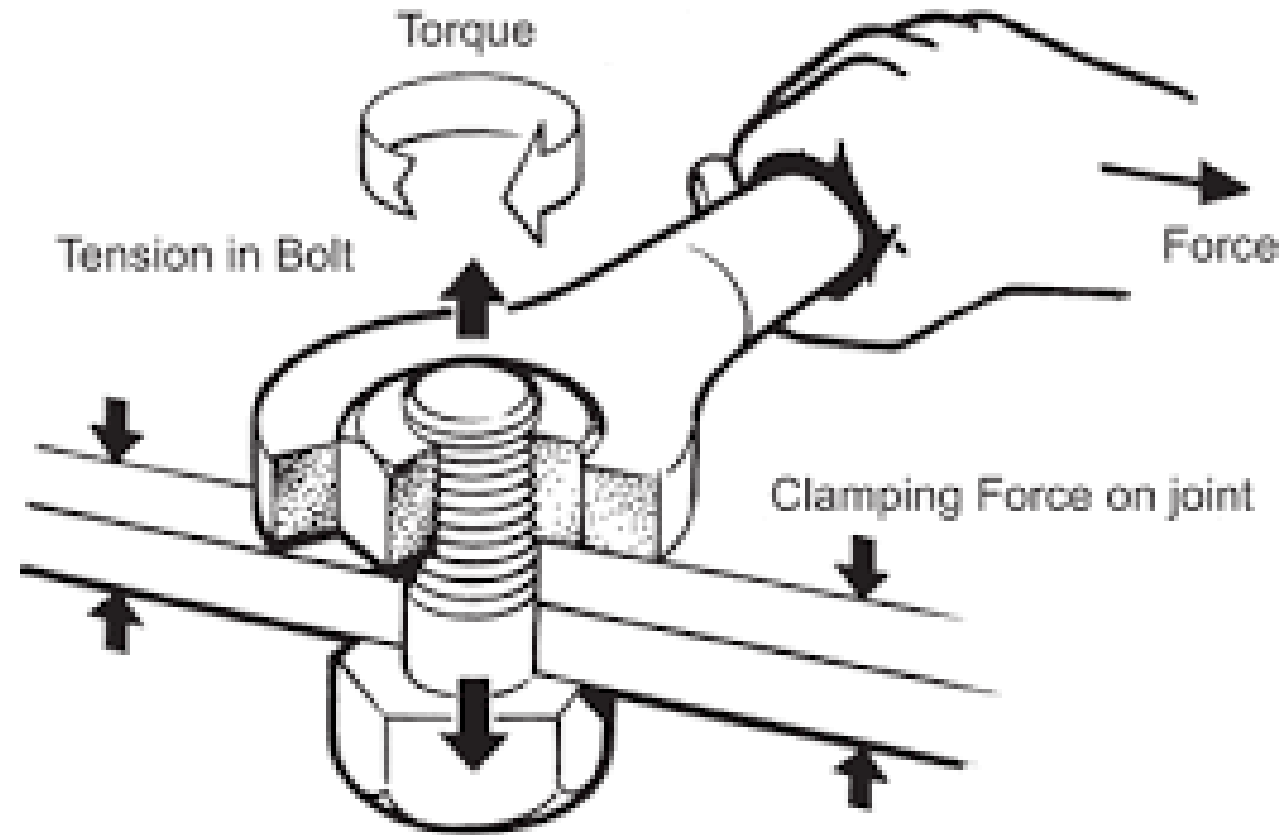
Getting to the Caecum in a Logical Manner

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Colorectal Unit

Groote Schuur Hospital UCT

Torque steering



Why get the lumen to 12 o'clock

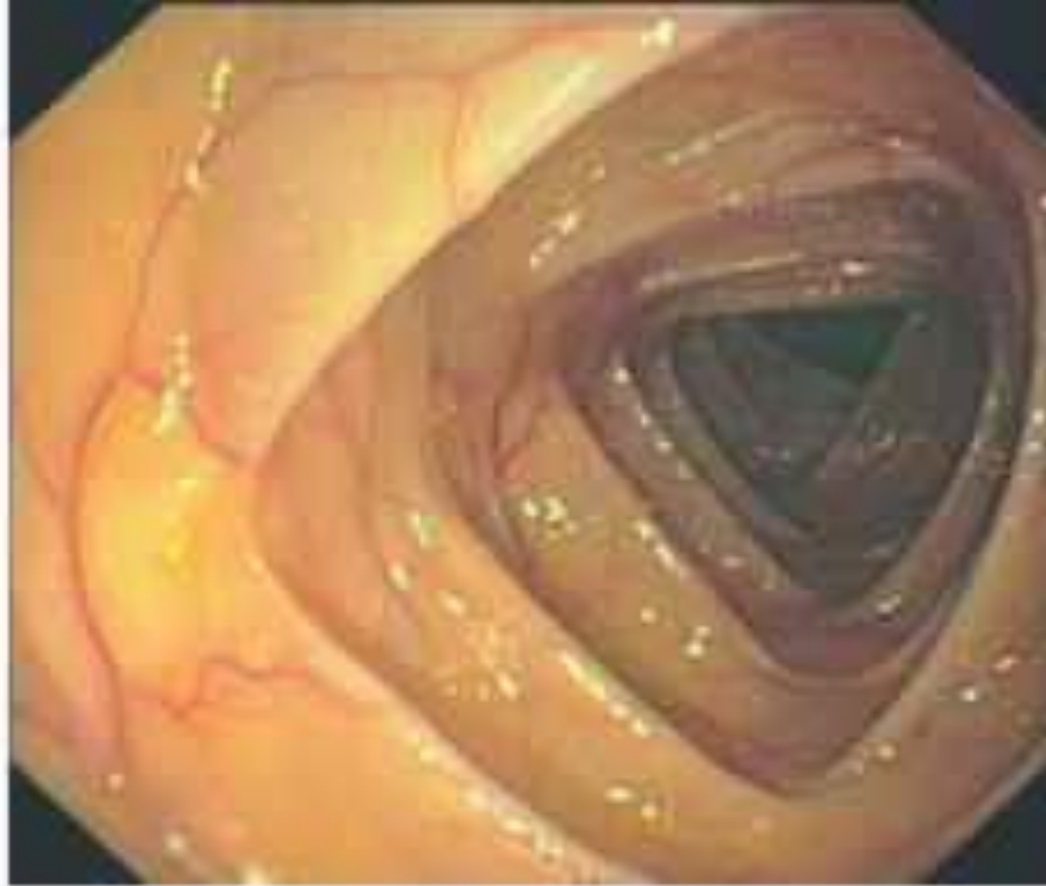


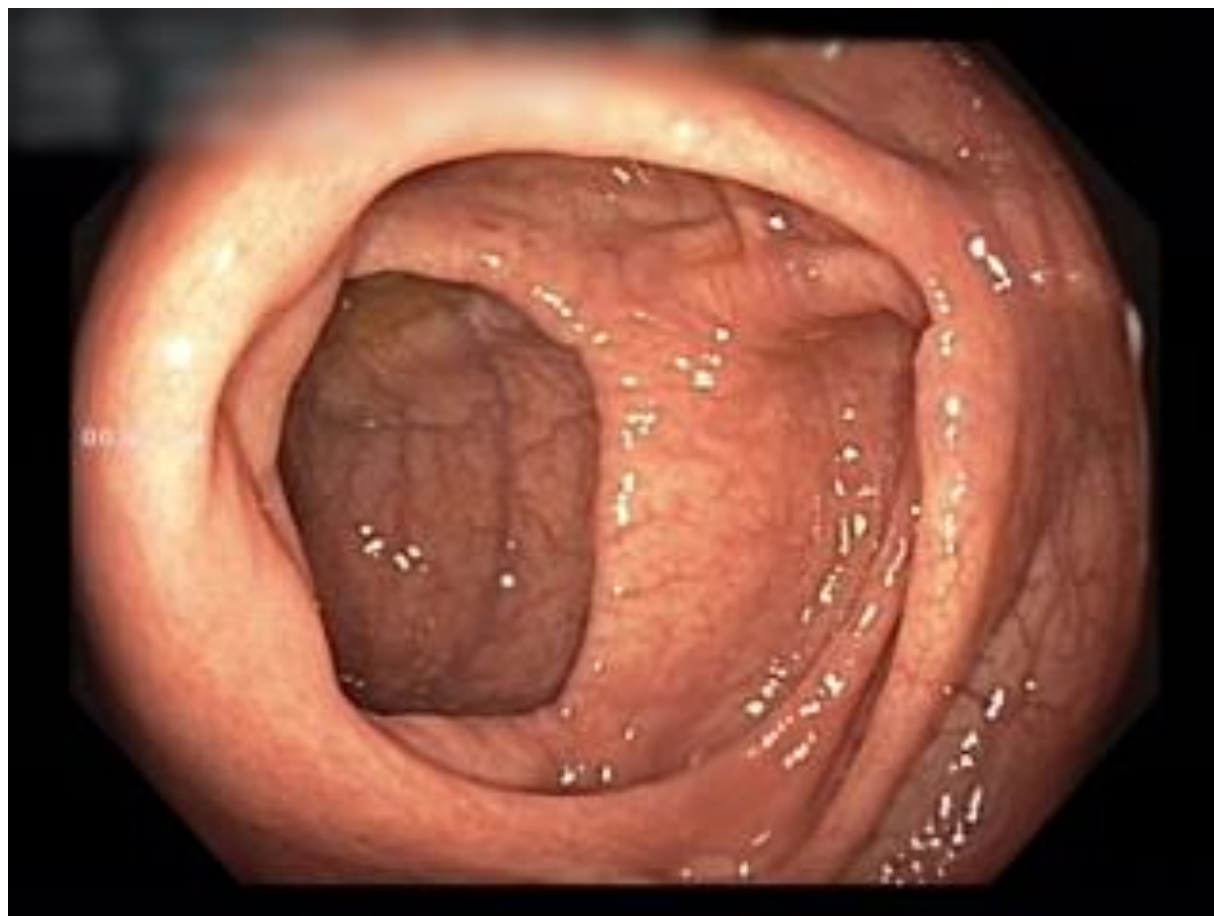
Failure to progress

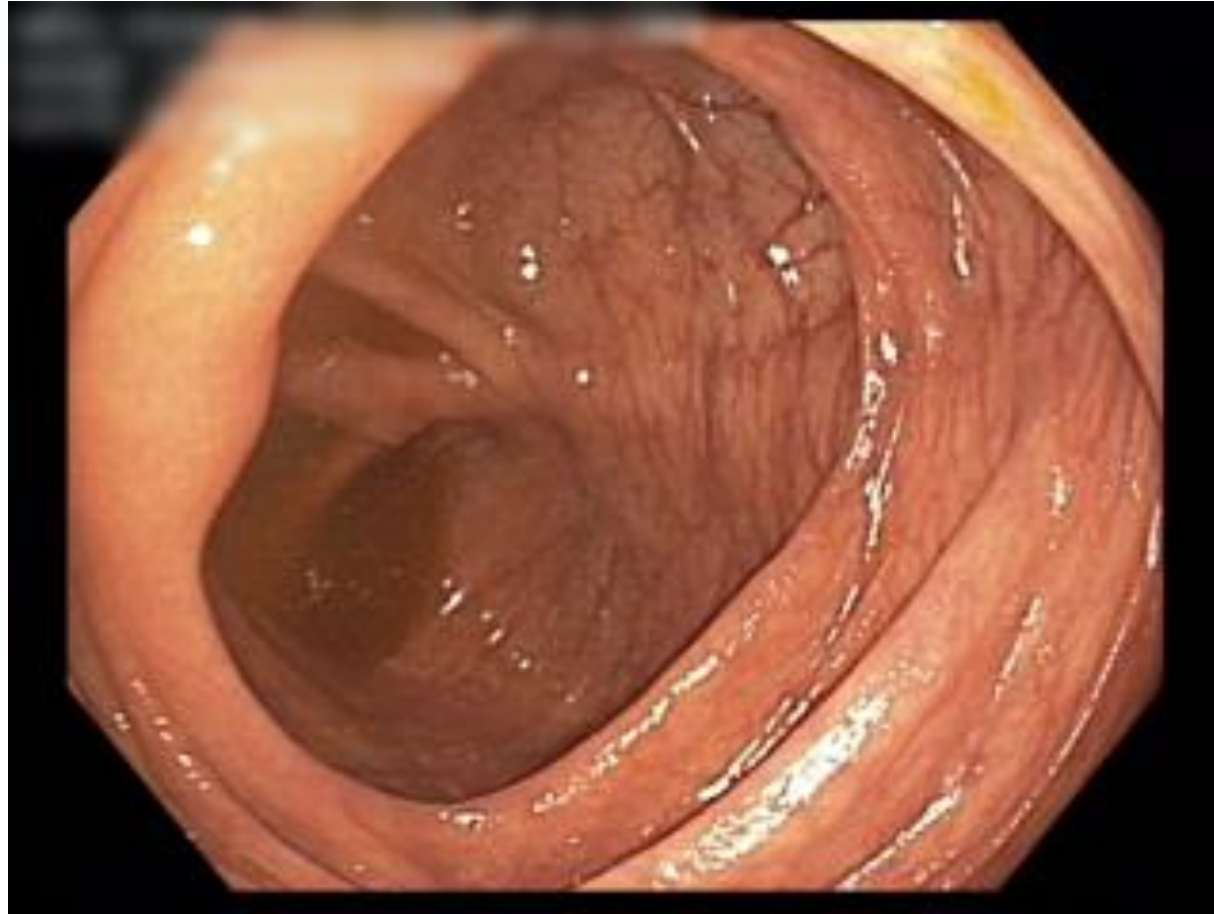
- Why
 - Tight corner
 - Looping
- 2 options
 - Move the scope
 - Move the patient

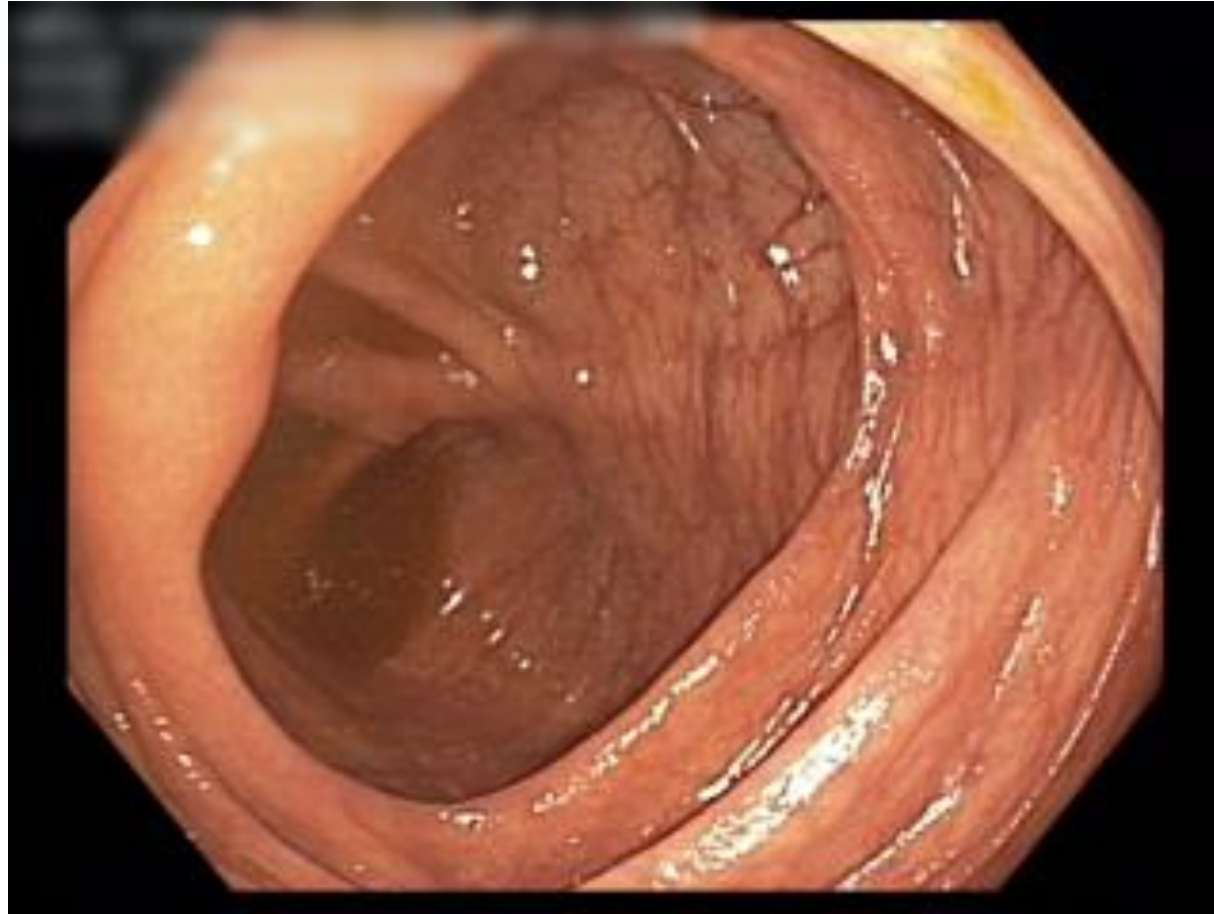
Anatomy of the colon

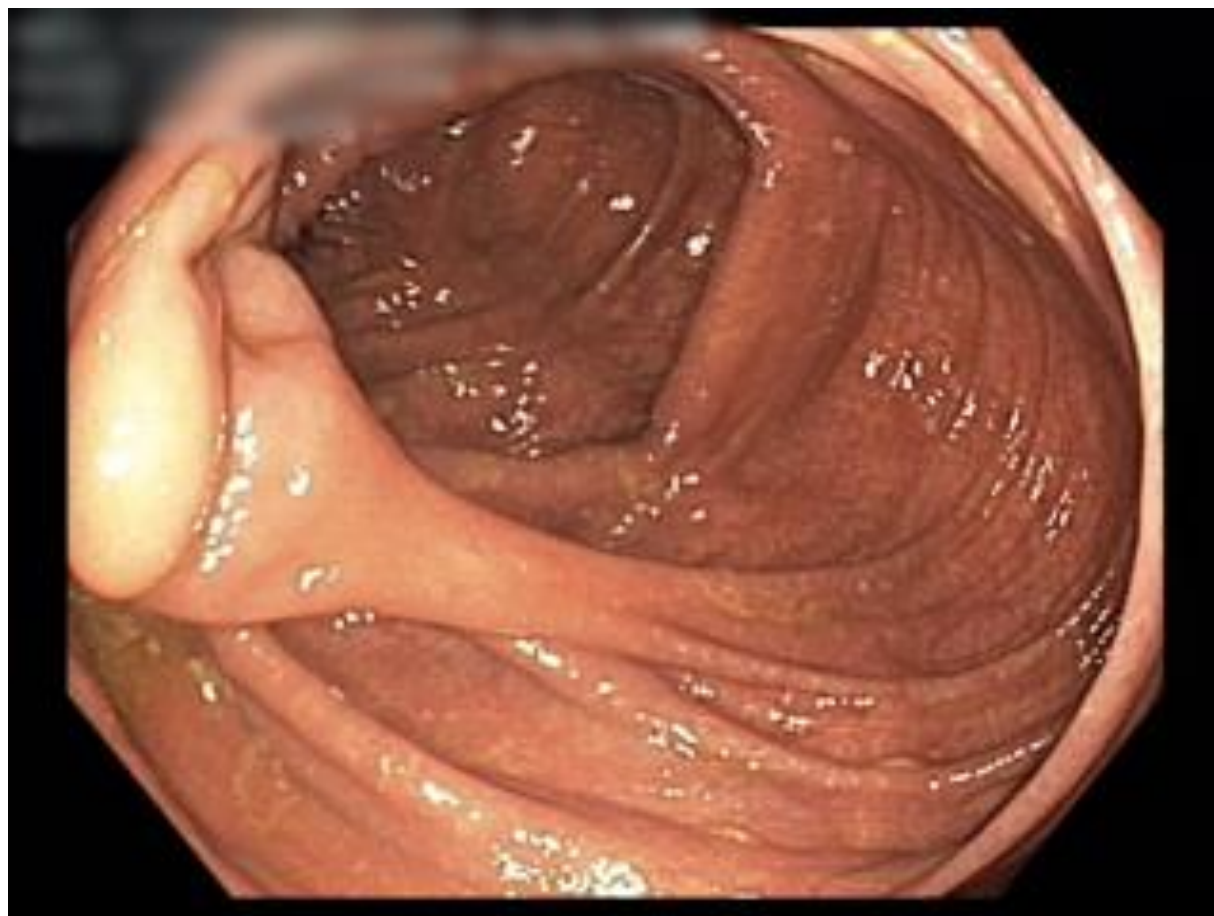
Anatomy of the colon



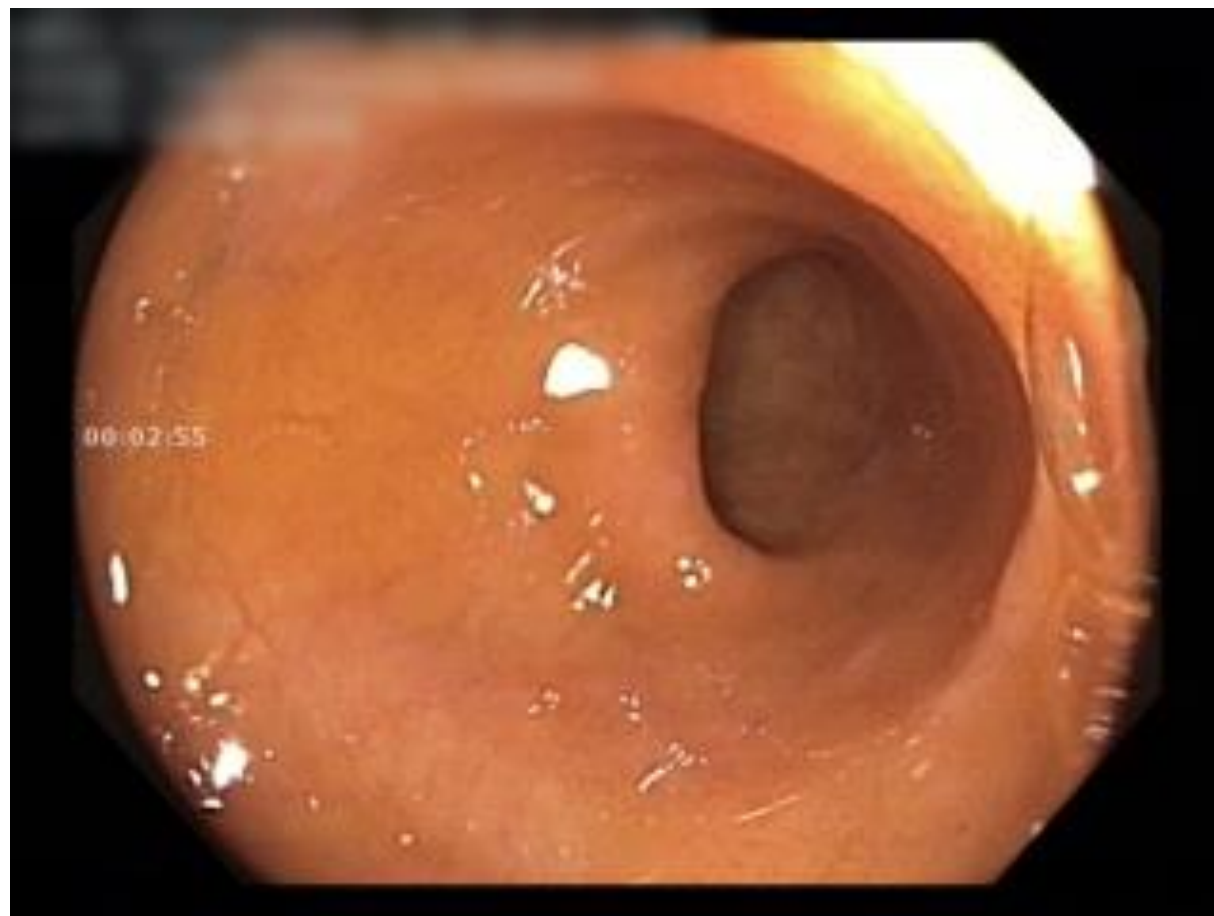


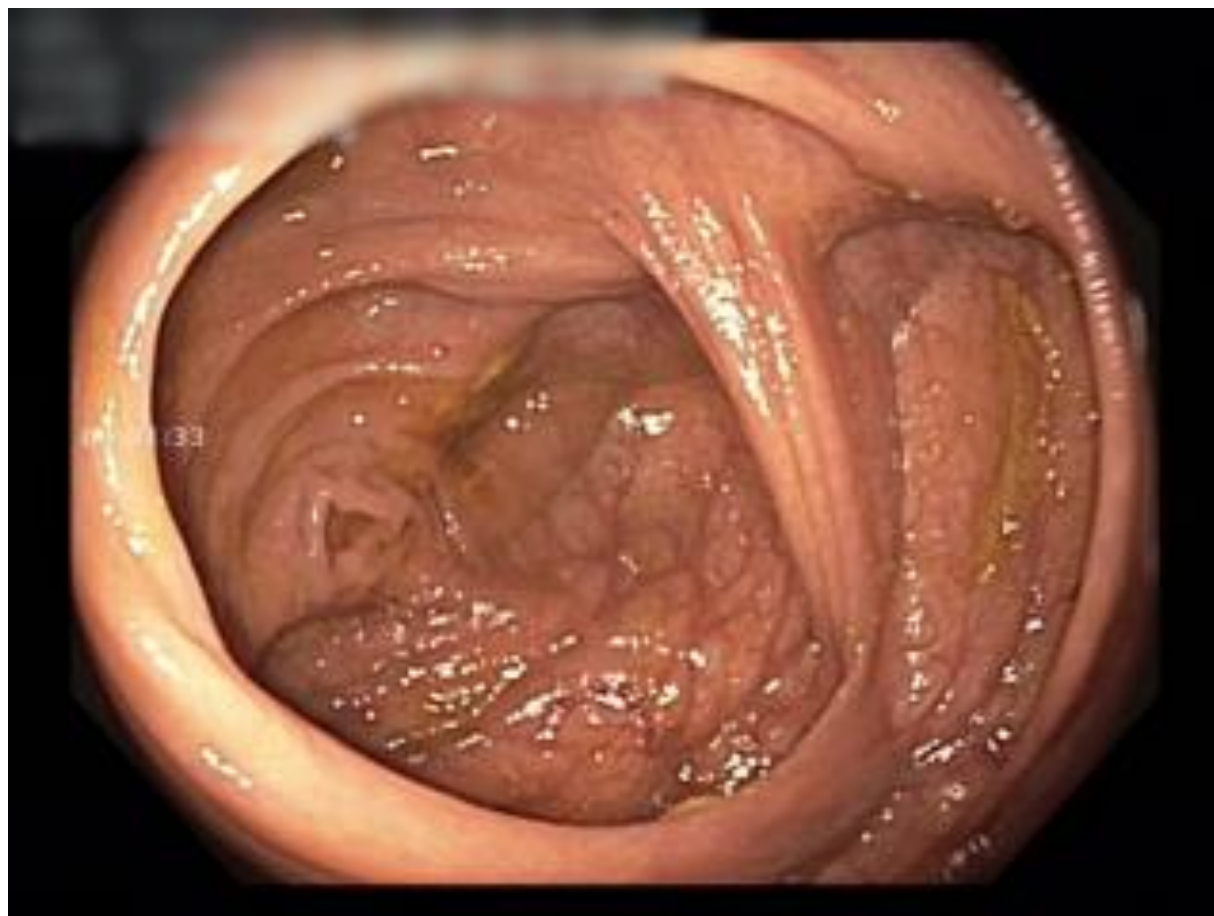














Colonoscopy algorithm

- Mucosal Slide
- Position change
- Clockwise withdrawal
- Counter clock wise withdrawal
- Extras
 - Breath hold
 - Stiffener
 - Pressure
 - Water

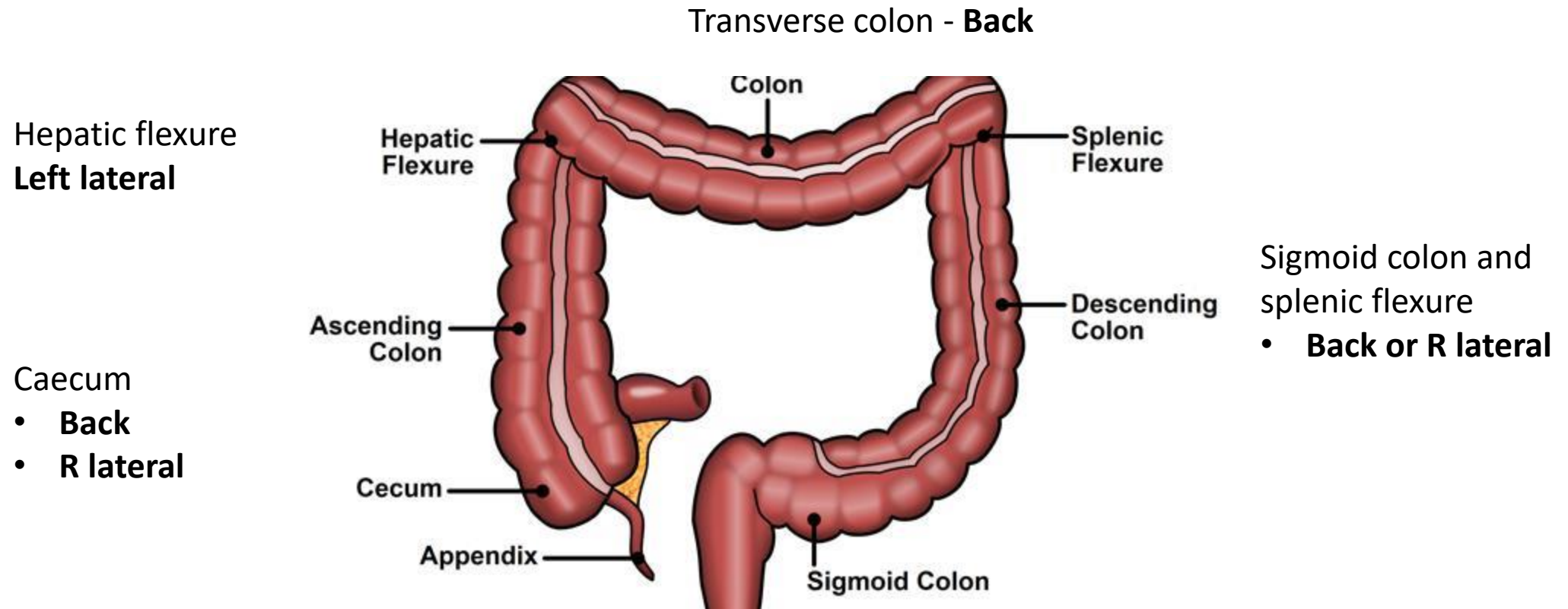
Mucosal Slide

- Move the lumen to 12 o clock
- Tip up
- Advance the scope
- Caveats
 - No divertics
 - No pain
 - No blanching
 - Constant mucosal movement

Position change

- Principles
 - Air floats
 - Water sinks
 - Open up angles by hanging mobile portion from fixed portion
 - Ascending and descending colon are fixed
 - Transverse colon and sigmoid colon are mobile
- Problem
 - Difficult to move an unconscious patient

How Position Change Works

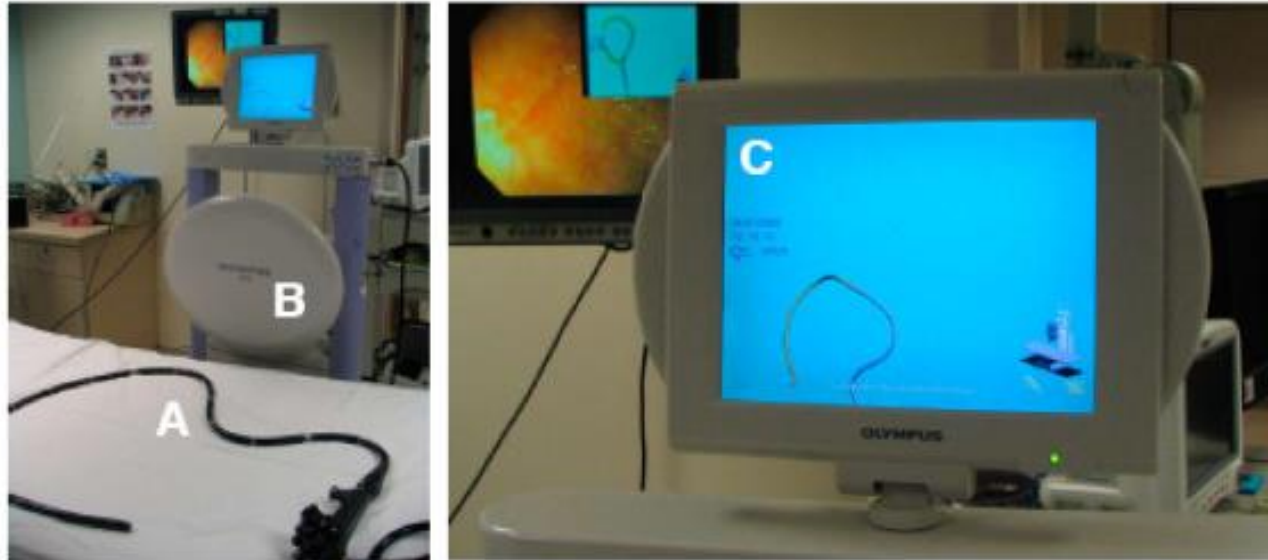


Looping

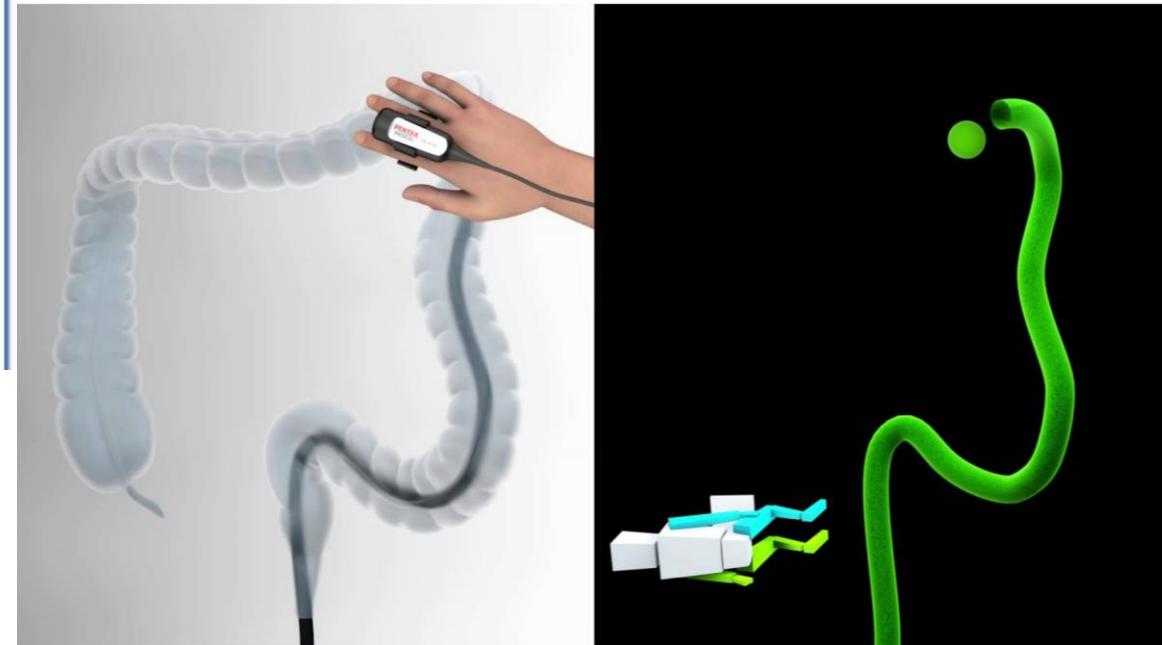
- 3 kinds of loops
 - Loop that resolves with clockwise torque
 - Loop that resolves with anti clockwise torque
 - Loop that does not resolve
- $\text{Pain} = \text{Loop}$

Magnetic Enhanced Imaging

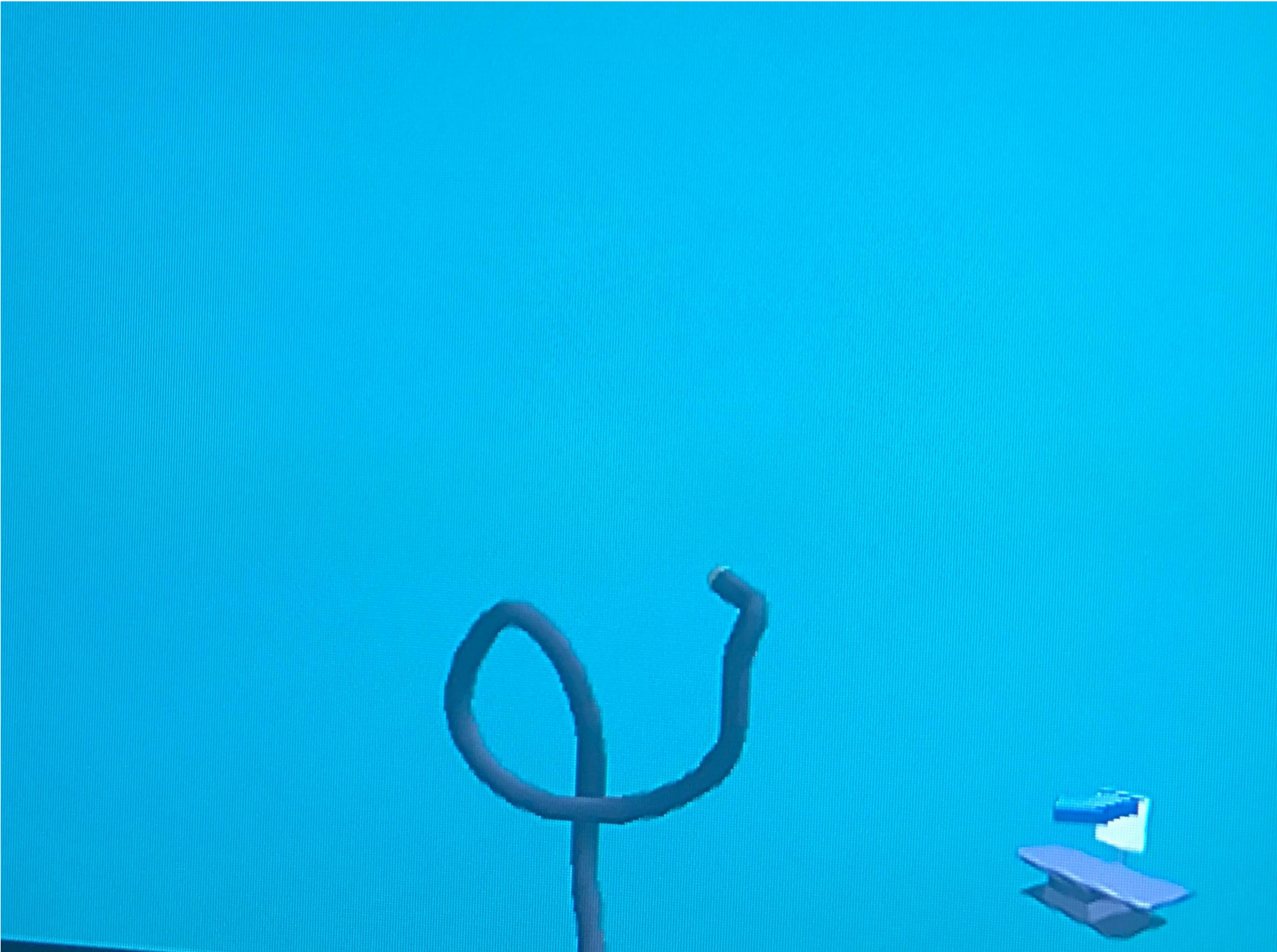
Scope Guide System, Olympus

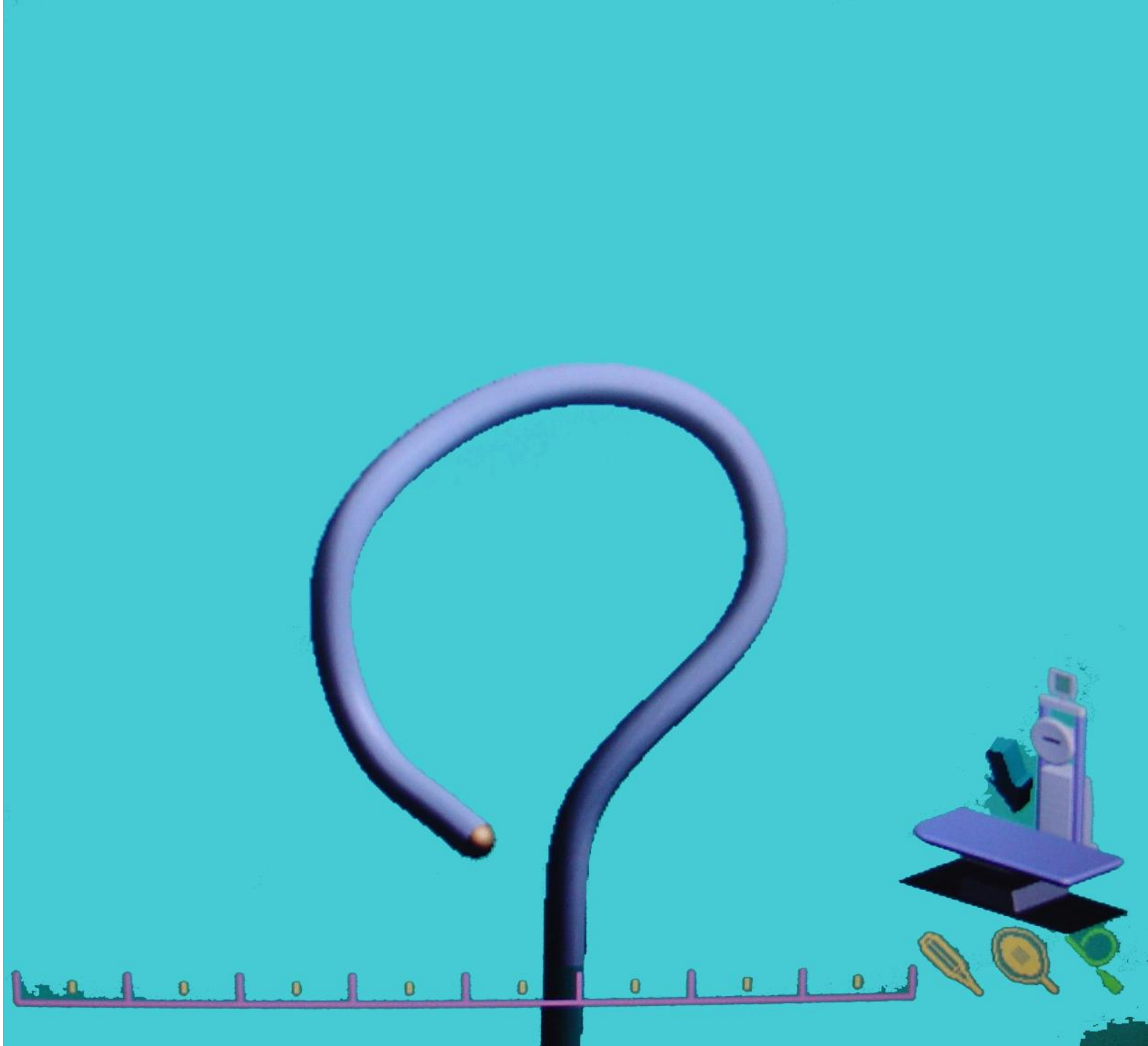


A) Adult variable stiffness colonoscope with embedded sensors (CF-Q160DL). B) EM transmitter. C) System monitor.









Alpha Loop

Reduce with a clockwise twist.



Reverse Alpha Loop

Reduce with a counterclockwise twist.



N Loop

Advance carefully and reduce with a clockwise twist if there is a spiral component.



Spiral Sigmoid Loop

Reduce with a clockwise twist.





Advantages of scope guide

- Pain caused by looping (*Shah et al Endoscopy 2002 June*)
- Reduced pain (*opinion not back up by trials*)
- Accurate localization (*Moug et al Surg endoscopy Nov 2016*)
- Excellent teaching aid(*Holme et al Gastro Endosc 2011 June*)
- Better Caecal intubation rate (*Chen WJG 2013 Nov*)
- Straight scope better for therapy

Adjuncts

- Splint the diaphragm
 - Breath hold
- Stiffener
- Water immersion
- Abdominal pressure
- Change the scope



My standard scope

- Left lateral to start
- Mucosal slide rectosigmoid junction
- On to back as soon as possible.
- At hepatic flexure onto left
- Back onto back
- At ileocecal valve
 - Stiffener on
 - Breath hold
 - Occasional transverse pressure

Conclusion

- Mucosal slide
- Position change
- Reduce the loop