COLONSCOPY

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- Early attempts at colonoscopy were hindered by poor technique and limitations of available instruments. The ability to steer an endoscope around the entire colon and into the terminal ileum was made possible by the development of fully flexible colonoscopes with >90° angulation of the tip. Advances in - bowel preparation have enhanced mucosal visualisation. Understanding two key technical aspects of colonoscopy allows a greater caecal intubation rate and ileal intubation tic with minimal discomfort using light sedation. The first is that continued inward pressure of the endoscope results in loop formation within the mobile sigmoid and transverse colon, which in turn leads to paradoxical movement and loss of fine tip control. The second is that pulling back the scope regularly with appropriate torque to ensure a straight passage through the sigmoid colon and around the splenic flexure greatly aids the completion of right-sided examination. Endoscopic navigation systems such as Scope Guide (Olympus) and Scope Pilot (Pentax) can help to characterise the nature of the loop, allowing for more accurate loop reso - lution techniques. Increasing the sti ff ness of the colonoscope, tar geted abdominal pressure and regular patient position change are also important aids to successfully reaching the caecum. It is expected that the caecum should be r eached in at least 90% of colonoscopies and is confirmed by the presence of the appendiceal orifice, the triradiate fold, the ileocaecal valve and preferably terminal ileal intubation (Figure 9.14). Historically , air was used to insu ffl ate the bowel, but carbon dioxide is now preferred owing to better patient tolerance and lower risk of perforation. Recent evidence has suggested that using water alone to distend the colon ma y reduce patient dis - comfort further. The ability to take mucosal biopsies and resect polyps ensures that colonoscopy is the most appropriate investigation - for the majority of patients. In selected groups, CT colonog raphy and colon capsule endoscopy provide an alternative route for investigating colonic pathology , though these are limited by the inability to acquire tissue. Accordingly , colonoscopy remains the cornerstone of most colorectal cancer (CRC) screening programmes globally , whether it is used as the initial screen ing modality or following a faecal immunochemical test (FIT). Johann Conrad Peyer , 1653–1712, Professor of Logic, Rhetoric and Medicine, Scha ff hausen, Switzerland, described the lymph follicles in the intestine in 1677. detected and hence decrease mortality , as well as to identify and remove adenomatous polyps prior to the development of overt cancer. Higher adenoma detection rates (ADRs) are er rates of interval cancers and, as such, associated with lo w the ADR is an important indicator of colonoscopy quality . ADRs can be improved with measures such as a longer time taken on withdrawal from the caecum, optimal bowel prepa - ration, patient position changes and a ‘second look’ of the right colon by changing patient position or by retroflexing the colonoscope. Distal attachments, such as a transparent cap or TM , can improve ADRs further. an Endocu ff Vision Summary box 9.7 Indications for colonoscopy /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF

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