



A Few Words about Endoscopy in Pregnancy

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Abstract

Endoscopic diagnostics is a minimally invasive method that is used if a complete insight into the condition of internal structures is required. The endoscope has a camera at the top of the tube to observe the cavities. A swab from the mucosal surface and a biopsy sample may also be taken if there are indications to perform it.

Keywords: Endoscopy, Pregnancy, Bleeding, Birth Defects, Esophagi Gastropub Denoscopy

Introduction

Although endoscopy is recurring within the assessment of many gastrointestinal disorders, it's far commonly best completed whilst sincerely wished in being pregnant because of the chance to the fetus of sedative medicinal drugs, mainly within the first trimester, and technical complexity all through the third trimester [1]. The dangers of sedative medicinal drugs consist of overdose, allergic reaction, teratogenesis, and hemodynamic instability of the mom main to hypoxia and hypotension of the fetus.

In general, maternal hypotension must be prevented as a whole lot as viable; sufferers with gastrointestinal bleeding must be resuscitated with packed erythrocytes and fluid as wished earlier than the system. Antihypertensives before the system and colonic overdistention all through the system must be prevented. Patients must now no longer be positioned or moved to the supine role (due to the fact the gravid uterus compresses the vena cava and may cause hypotension), and sedative medicinal drugs must be used judiciously however sparingly. If hypotension happens all through the system, intravenous fluids must be used, and the affected person's role must be modified to empty blood from the

decrease extremities to the important organs. Consideration must take delivery of two terminating the system. Premature uterine contractions all through endoscopy can also additionally require tocolytics which include magnesium sulfate or terbutaline. Consultation with an obstetrician is essential, and anesthesiologic help with the system must constantly be taken into consideration, mainly within the first trimester, all through a high chance being pregnant, within the presence of maternal or fetal instability, or for an extended system which include ERCP (Endoscopic Retrograde Cholangiopancreatography).

Endoscopy

Endoscopy is completed through putting a fiber-optic telescope containing a mild supply and device channels into the gastrointestinal, respiration and urinary tracts [2]. The operator undertakes the system through manipulating the endoscope at the same time as viewing a video display however from time to time the eyepiece of the device can be used.

Endoscopy of the gastrointestinal tract lets in the endoscopist to view the lumen of the esophagus, belly, and proximal half

of the duodenum (esophagogastroduodenoscopy or higher gastrointestinal endoscopy or gastroscopy), colon (colonoscopy), rectum and distal sigmoid colon (sigmoidoscopy), and distal rectum and anal canal (proctoscopy). It is typically completed below sedation. Intestinal endoscopy also can be completed at laparotomy (enterostomy) through creating a small incision within the gut and passing the endoscope alongside the intestinal lumen. Procedures which include dilatation of strictures, biopsy and diathermy ablation of polyps, injection of adrenaline round bleeding gastric and duodenal ulcers, cholangiopancreatography, elimination of not unusual place bile duct calculi, biliary dilatation or stenting, injection of hemorrhoids and tumors phototherapy may be completed the use of fiber-optic endoscopes.

Endoscopy (3–6 h after ingestion) lets in comparing the volume and severity of caustic accidents; numerous grading classifications had been proposed, maximum of which had been derived from the Zargari classification [3]. Endoscopy was once the cornerstone of control algorithms worldwide. Patients with high-grade (3b) accidents are typically taken into consideration for surgical treatment at the same time as nonoperative remedies are tried for low-grade accidents ($\leq 3a$). The primary disadvantage of endoscopy is its incapability to are expecting appropriately the depths of intramural necrosis; this could cause futile surgical treatment or inappropriate “wait and see” control. Endoscopy reliably predicts dangers of stricture formation all through follow-up.

Esophagi Gastropub Denoscopy (EGD)

The maximum not unusual place warning signs for higher endoscopy all through being pregnant consist of higher gastrointestinal bleeding, mainly to rule out variceal bleeding or PUD (peptic ulcer disease), and excessive dyspepsia or epigastric consolation to rule out PUD [1]. Severe hyperemesis this is unresponsive to control, and odynophagia or dysphagia are different viable warning signs. Recent research has now no longer validated a growth in headaches in pregnant sufferers who’ve gone through esophagogastroduodenoscopy (EGD). Informed consent must nonetheless contain a dialogue of viable fetal dangers associated with sedation and the system. An obstetrician must be worried to decide if fetal tracking is wished. The American Society for Gastrointestinal Endoscopy (ASGE) additionally recommends that sufferers now no longer lie within the supine role all through healing because of the chance of inferior vena cava compression. During the system the affected person must be positioned within the left lateral role with the pinnacle expanded because of an multiplied chance of regurgitation of gastric contents in pregnant sufferers. Aspiration must be prevented through competitive perioral suctioning, elevation of the pinnacle of the affected person, nasogastric aspiration in sufferers with higher gastrointestinal bleeding earlier than EGD, and aspiration of the gastric lake all through the system. For sufferers with gastrointestinal bleeding,

resuscitation must be completed earlier than the system to the volume viable.

Hematochezia

The maximum not unusual place symptom main to the usage of decrease endoscopy all through being pregnant is hematochezia [1]. Severe diarrhea, belly pain, colonoscopy decompression of volvulus, and assessment of a mass lesion are different viable warning signs. Another indication for decrease endoscopy all through being pregnant is incarceration of the gravid uterus; on this condition, the uterus turns into lodged below the inferior margin of the sacral promontory. One record has defined five sufferers who underwent a success colonoscopy launch through intubating the sigmoid colon to use strain to the anterior wall of the rectum after guide discount had failed. No unfavorable fetal effects had been observed, and the opportunity might had been surgical treatment, which includes a mile’s better chance.

The protection of bendy sigmoidoscopy has been validated in a couple of case reviews and research. Flexible sigmoidoscopy has been completed without unfavorable results in all three trimesters of being pregnant. Most approaches are finished with minimum bowel preparation (tap-water enemas) and without sedation to limit unfavorable effects. Although hemodynamic tracking of the mom must constantly be part of the system, maximum stated instances did now no longer contain any fetal tracking, alevin though this could be taken into consideration, especially in instances of maternal hemodynamic instability.

Colonoscopy is not often indicated all through being pregnant and much less is thought approximately the protection of this system. If required, the second one trimester is typically taken into consideration the most secure time to carry out colonoscopy all through being pregnant. The theoretical dangers of colonoscopy consist of untimely labor, uterine rupture, placental abruption, and fetal compression.

Bleeding

There are only a few statistics at the dangers associated with endoscopic remedy in being pregnant [1]. Because endoscopy is frequently completed for the indication of gastrointestinal bleeding, endoscopic hemostasis can be required to preserve hemodynamic balance of the mom and fetus and to keep away from the more dangers of continual bleeding or surgical treatment. No unfavorable occasions associated with the usage of thermocoagulation in being pregnant had been stated in case reviews and small research; however, electric powered contemporary can pass the amniotic fluid, and the chance of fetal publicity remains. The ASGE recommends that bipolar cautery must be used as opposed to monopolar to lessen the chance of fetal publicity to stray contemporary. The affected person must be in order that the uterus isn’t always among the electric catheter and the grounding pad.

Alternatives

Upper gastrointestinal series, barium enemas, belly radiographs, angiography, and CT (automated tomography) are typically prevented in being pregnant because of radiation teratogenicity [1]. Bleeding scans also are contraindicated because of ionizing radiation. MRI (magnetic resonance imaging), on the alternative hand, is assumed to be more secure in being pregnant than CT scans; quick-time period publicity to electromagnetic radiation from MRI does now no longer seem to provide dangerous fetal effects. MRCP (magnetic resonance cholangiopancreatography) can be an opportunity to diagnostic ERCP all through being pregnant.

Video tablet endoscopy can be a beneficial opportunity or adjunct to endoscopy all through being pregnant because it does now no longer require sedation and does now no longer exert mechanical strain at the uterus. Theoretically the gravid uterus and impact of being pregnant on motility can also additionally retard the passage of the tablet, however those elements must now no longer predispose to retention withinside the absence of strictures or bowel obstruction. On the alternative hand, radiographs to verify passage, and surgical treatment withinside the occasion of retention, might contain dangers to the mom and the fetus. The protection of this technique has now no longer been evaluated in being pregnant, however it's far theoretically promising as a much less-invasive diagnostic method to luminal disease.

Birth Defects

Based on its maximum current statistics, the Centers for Disease Control and Prevention reviews that beginning defects influence 1 in 33 babies and are the main motive of toddler mortality withinside the United States, greater so than low beginning weight and prematurity, unexpected toddler loss of life syndrome (SIDS), and maternal headaches [4]. Affected toddlers who live to tell the tale are at multiplied chance for growing lifelong bodily and cognitive challenges. Lifelong charges related to beginning defects, for example, and annual sanatorium remains are a full-size stressor on households and the healthcare gadget alike. Fortunately, advances in fetal prognosis permit clinicians to each appropriately discover maximum complicated anomalies prenatally and, greater frequently, stratify the severity of the beginning defect. In many instances, due to the fact prognosis may be made withinside the 2d trimester, clinicians can offer households statistics that permits them to make greater knowledgeable selections approximately the being pregnant and the shipping plan and to plot and put together for the future.

Over the beyond four decades, fetal intervention for congenital anomalies has developed from an insignificant idea to a full-fledged clinical specialty. The approach of fetal intervention is to

ameliorate or opposite several the modern physiologic organ harm that happens from a selected defect. Operative strategies utilized in fetal surgical treatment, which include open hysterotomy, fetal endoscopy, and image-guided percutaneous approaches, had been evolved and examined substantially in animal fashions first, earlier than scientific application. These advances in surgical strategies paralleled and complemented the ones in fetal imaging, prenatal prognosis, and maternal tocolysis. In a quite quick time, fetal intervention has come to be an essential alternative for the remedy of fetuses who might in any other case now no longer live to tell the tale gestation or who might undergo full-size morbidity and mortality after beginning.

Conclusion

Gynecological endoscopy developed very rapidly. Great progress has been made in preventing or stopping bleeding when removing parts of the tissue. Today, endoscopically, some surgical procedures are performed that were previously thought to be not feasible in such a way - removal of large fibroids, some uterine deformities, malignancies of the uterus and ovaries. Moreover, in an increasing number of cases, endoscopy is one of the basic therapeutic methods in gynecology. The quality of endoscopic surgery is defined not only by these advantages, but, above all, by the fact that it brings patients less pain and trauma, less blood loss, minimal scarring, faster recovery. The preparation for endoscopic surgery is also significantly shorter, and already two hours after the surgery, the patient gets to her feet and can walk.

Acknowledgment

None.

Conflict of Interest

No conflict of interest.

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