Successful Cholecystectomy During Pregnancy

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SAN DIEGO — A pregnant woman successfully delivered twins at term after undergoing laparoscopic cholecystectomy for symptomatic gall bladder disease during the first trimester, Kathy Gohar, M.D., said.

Cholecystectomy is one of the most common nonobstetric surgeries performed during pregnancy, but limited experience with the relatively new laparoscopic approach makes it controversial. About 10%-40% of patients with symptomatic gallstone disease require surgical treatment, said Dr. Gohar of Albert Einstein Medical Center, Philadelphia, and her associates.

Potential advantages of laparoscopic cholecystectomy include less need for narcotics that cause fetal depression, less postoperative pain, shorter hospital stay, a smaller incision, quicker return of bowel activity, and less chance of incisional hernia, compared with open cholecystectomy.

The 24-year-old woman with twins at 17 weeks' gestation came to the emergency department complaining of 4 days of abdominal pain with nausea and vomiting. She recently had been admitted to a separate hospital for biliary colic and had been treated conservatively with IV hydration, antiemetics, and analgesics. Approximately 60% of patients with symptomatic gallstone disease will require additional hospitalizations after receiving conservative medical management.

The patient had stable vital signs and no fever. Her abdomen was soft with positive bowel sounds and tenderness in the right upper quadrant with deep palpation.

Dr. Gohar and her associates resumed the medical management strategies, but the patient failed oral feeding and continued to have nausea, vomiting, diarrhea, and abdominal pain. An ultrasound exam showed a 19-mm solitary gallstone at the neck of the gall bladder. The common bile duct measured 5.3 mm on imaging, and no pericholecystic fluid or gall bladder wall thickening was observed.

The patient was given preoperative antibiotics and the tocolytic agent indomethacin and taken to the operating room for laparoscopic cholecystectomy. During surgery, her abdominal tissues were fragile and at times bled easily, Dr. Gohar said. Surgeons removed the gall bladder, found it to be filled with mucinous fluid, and diagnosed hydrops of the gall bladder.

After two postoperative days without any intrauterine contractions, the patient was discharged. She developed no complications and subsequently delivered healthy twins at 36 weeks' gestation.

The ideal time for cholecystectomy during pregnancy is not during the first trimester, as in this case, but in the second trimester. By that time, the woman has passed the time of greatest risk for spontaneous abortion, organogenesis is complete, induction of premature labor is less likely than later in pregnancy, and the uterus is not too large for operative intervention, Dr. Gohar said.

She and her associates followed recommendations in the medical literature for management of gall bladder disease during pregnancy. They obtained a preoperative obstetrical consultation and monitored for uterine contractions before and after surgery. Use of tocolytics is advised from 20 to 32 weeks' gestation in these cases, she noted.

Surgeons placed the patient in a left anterior oblique position to displace the uterus from the inferior vena cava. They used a pneumoperitoneum compression device, since pregnancy induces a hypercoagulable state and the pneumoperitoneum enhances venous stasis in the lower extremities. Fetal heart monitoring was conducted before and during surgery.

After measuring the uterine fundus height, they inserted the primary trocar via the Hasson technique (at the supraumbilical subxiphoid or left upper quadrant) and inserted the secondary trocars higher than called for in nonpregnant patients. They monitored maternal end-tidal carbon dioxide measurements to indirectly gauge fetal carbon dioxide levels.

If an intraoperative cholangiogram is needed during pregnancy, a lead shield should be employed to protect the gravid uterus, and fluoroscopy should be used selectively, Dr. Gohar added. Patients with enlarged uteri are better candidates for open cholecystectomy than the laparoscopic approach to provide sufficient abdominal access. ■