Challenges of laparoscopic lymphadenectomy for cervical cancer in pregnant women: techniques and tips

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Young pregnant women with cervical cancer often want to preserve their pregnancy, if practical. Because lymph node metastasis is a poor prognostic factor, pathological assessment of the nodes should be performed before postponing a definitive treatment during pregnancy. Several retrospective studies have reported that laparoscopic lymphadenectomy during pregnancy is safe and reproducible; however, reports focused on providing helpful tips on the surgical technique are rare.^{1–3} In [Video 1](#), we share our unique technique for laparoscopic pelvic lymphadenectomy for early stage cervical cancer during pregnancy. A 29-year-old primipara woman was diagnosed with stage IB1 cervical adenocarcinoma (T1b1N0M0, tumor size 1.5cm) at 14 weeks' gestation. She wanted to maintain the pregnancy, so at 16

weeks' gestation, we performed a laparoscopic pelvic lymphadenectomy and simple vaginal trachelectomy. The gravid uterus fully occupied the pelvic cavity and restricted surgical access, especially on the contralateral side of the surgeon. We obtained an improved surgical visual field by rotating the patient's body and moving the uterine body using forceps with inserted gauze. The gauze prevented the forceps from slipping and decreased undue force to the uterus. Moreover, the use of gauze as a cushion avoided trauma to the uterus caused by the tip of the forceps. It was difficult to maintain an open surgical field and perform the lymphadenectomy solely by rotating the patient's body. Using gauze to move the uterine body made surgery easier. Using these techniques, we successfully performed laparoscopic lymphadenectomy

Video 1 Moving the uterine body using gauze and forceps.

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Video article

in the deep pelvic cavity. Subsequently, we conducted a simple vaginal trachelectomy and Shirodkar cerclage. We removed 21 lymph nodes for analysis and had no recurrence or post-surgical complications. At 37 weeks' gestation, the patient underwent cesarean section delivery of a healthy male neonate, weighing 2708 g, followed by radical hysterectomy. She was discharged 13 days after surgery and has been free of recurrence and complications for 2 years. To our knowledge, this is the first video report focusing on techniques and tips in laparoscopic lymphadenectomy for cervical cancer during pregnancy. In conclusion, our surgical techniques and tips could make laparoscopic lymphadenectomy during pregnancy safer, more feasible, and more routine.

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