

Laparoscopic salpingo-oophorectomy during pregnancy: a case report

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Introduction

Presently endoscopic surgery is generally considered the primary surgical technique for benign adnexal masses during gestation. Consequently, laparoscopy has recently also been successfully applied during pregnancy [1, 2]. The routine use of ecography has made it possible to estimate that the incidence of adnexal masses in the second trimester of pregnancy is between 1:80 and 1:2500 [3]. Adnexal tumors are the second most frequent gynecological neoplasias during pregnancy and it appears that pregnancy does not alter the incidence or growth rate [4]. In two-thirds of the cases the tumors originate from the epithelium and most are borderline tumors in advanced stages. This type of tumor is characterized by an excellent prognosis, an unusual progression, slow cellular growth and by a late onset of recurrence [5]. Keeping into account the above characteristics, the surgical approach presently tends to be oriented towards laparoscopic surgery even if the surgical removal of an adnexal mass still today is perplexing in that it is associated with a significant increase in abortions, especially if the intervention is during the first trimester of gestation [6]. It follows that adnexal surgery during pregnancy should preferably be performed during the second trimester because the incidence of spontaneous abortions and premature births are lower in that in the 12th week the function of the corpus luteum is replaced by the endocrine activity of the placenta.

The choice of the laparoscopic surgical technique is strengthened by the well known advantages of the method: shorter hospitalization, early return to normal activity, prompt mobilization with a consequent reduction in risk of deep venous thrombosis which pregnant women are more prone to. Moreover there is less trauma to the uterus and therefore less possibility of causing contractions or accidental bleeding. Nonetheless the advantages of using laparoscopy during pregnancy are limited because of the risks associated with the insertion of the Verres needle and trocar, the reduced space to perform surgical maneuvers, and the unknown effects of the pneumoperitoneum of the fetus [7].

We are of the opinion instead, that laparoscopy can be safely used to remove even large adnexal masses in the

first trimester of gestation without damage to the fetus, as long as the necessary technical care for each single case is respected. In this connection we report a case of a large simple serous cystoma found in a pregnant woman in the 11th week of gestation which was brought to our attention and treated by left salpingo-oophorectomy performed laparoscopically.

Materials and Methods

In June 1998 a 27-year-old woman (P.N.), para 0000, was admitted to the Obstetrics and Gynecology Clinic of the University of Messina. Ten days before during a routine ecography a large simple cystic mass, serous in content and presumably related to an ovarian cyst was found. The patient (hgt 165 cm, wgt 58 kg) was in the 11th week of gestation. She reported that menarche began at the age of 12 with subsequent menstrual fluxes every 25 days and lasting for 5 days. The general clinical condition of the patient was good and the hematochemical examination was normal. Abdominal palpation and vaginal exploration confirmed the presence of a mass with a volume of the head of a fetus at full term, with a stretched elastic-like consistency surmounting the uterus with the highest limits reaching above the transverse umbilical line. The abdomino-pelvic ecographic exam revealed the presence of a single fetus whose biometric data corresponded to the mean values of the gestational age with a CRL of 39 mm. The uterus appeared to be surmounted by a large transonic neof ormation with clear borders attributable to a simple ovarian cyst measuring 117x100x90 mm and extending upward and beyond the transverse umbilicus at least 3 cm with no clear point of origin. Two days after being admitted to hospital the patient underwent left salpingo-oophorectomy by laparoscopy. Notwithstanding the dimensions of the cyst we had no difficulty inserting the Verres needle and insufflating the neoperitoneum with 3 l of preheated CO₂. The introduction of a 10 mm trocar instead caused a little tear on the cystic wall without however compromising its integrity. No drawbacks occurred during the visually guided introduction of the *ancellari* trocars.

Under laparoscopic view the abdominal cavity appeared to be occupied by a large cystic mass with a smooth surface and whitish color which surmounted the uterus. After having grasped the ovarian cortico with the Manheims pinchers the serous mass was excised with scissors thus causing a fissure of about 1 cm through which the washing and expiration canulla was introduced and the contents of the cysts were completely emptied resulting in about 1.7 l of clear serous liquid.

Subsequently the salpingo-oophorectomy and the extraction of the surgical material into a laparoscopic endobag were

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performed. The patient was released 24 hours after the intervention after an ecographic exam confirmed a normal evolution of pregnancy. The postoperative course was unremarkable without complications or fever. On the 7th day the sutures were removed and a new ecography was done which resulted as normal.

The patient was followed-up during the course of her pregnancy at our clinic. The pregnancy progressed normally and at the 39th week and 5th day of gestation the patient was admitted to the hospital in labour. After nine hours she spontaneously delivered a newborn male weighing 2,920 g. His Apgar score was 9-10. Today the baby is in optimal health with no problems.

Discussion and Conclusions

The use of laparoscopy in the treatment of adnexal cystic formations during pregnancy appears to involve no particular risks for the fetus. Even if it is unusual, the case we have reported is another contribution to the validity of laparoscopic surgery which will continue to be used, even during pregnancy. Moreover, this technique also allows the removal of large masses with minimal access and with minimal uterine trauma. The risk of spillage of the cystic contents is no higher than in laparotomy because the neof ormation can also be extracted in an endoscopic bag. The success of one case does not authorize an indiscriminate use of laparoscopy during pregnancy but encourages further use of the method after careful evaluation of the risk-benefit ratio. This case report is additionally our contribution to the small number of cases reported in the literature which clearly needs more convincing case comparisons.

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