Objective: To compare the fertility outcome among women subjected to unilateral ovariectomy and other abdominal or non-gynaecologic pelvic surgery.

Design: Retrospective cohort study.

Setting: Sapienza University of Rome, Italy.

Patient(s): women, surgically treated for benign disease with unilateral ovariectomy (UO), appendectomy (AP) or cholecystectomy (CO). Patients with assessed pre-surgical fertility defects, previous abdominal or pelvic surgeries, and post-surgical contraception were not included into the study.

Intervention(s): unilateral ovariectomy, appendectomy or cholecystectomy.

Main outcome measure(s): long-term post-operative "take home baby" rate.

Result(s): between 1990 and 2001, among 116 selected cases, 36 women underwent UO, 39 were subjected to AP and 41 were treated with CO. After a minimum 10-years post-surgical interval, the overall number of successful pregnancies was 97. The rate of women who experienced at least 1 post-operative successful pregnancy was: 50% in UO, 41% in AP and 53.6% in CO (P > 0.05; UO vs AP, P = 0.49; UO vs CO, P = 0.82; AP vs CO, P = 0.27). In UO, 18/36 (50%), 5/36 (13.9%) and 2/36 (5.5%) patients carried out 1, 2 and >2 successful pregnancies, respectively.

Conclusion(s): No statistical difference in terms of post-operative "take home baby" rate between patients subjected to UO and AP or CO was found, thus allowing to suppose that the removal of one ovary does not significantly worsen the female fertility outcome respect to other abdominal or pelvic procedures.