STUDY QUESTION: What proportion of pregnancies are a result of ovum transmigration after salpingectomy for ectopic pregnancy? SUMMARY ANSWER: Approximately one-third of spontaneously conceived pregnancies are a result of pick-up of the ovum from the ovary contralateral to the remaining tube in women with a history of salpingectomy. WHAT IS KNOWN ALREADY: The corpus luteum has been found contralateral to tubal ectopic pregnancies in 32% of reported cases. The rate of contralateral ovum pick-up in intrauterine pregnancies is not known. STUDY DESIGN, SIZE, DURATION: We conducted a retrospective cohort study of clinical and ultrasound records collected over a 12-year period 1999-2010. Ten per cent of cases identified were excluded from the final analysis due to incomplete data or bilateral corpora lutea. PARTICIPANTS/MATERIALS, SETTINGS, METHODS: Included were 842 pregnancies in 707 women with a history of unilateral salpingectomy for ectopic pregnancy and subsequent spontaneous pregnancy. The study was set in the Early Pregnancy Unit of a large UK inner city teaching hospital. The outcome measure was the side of the corpus luteum in relation to the side of the remaining tube. MAIN RESULTS AND THE ROLE OF CHANCE: The corpus luteum was located in the ovary contralateral to the remaining tube in 266/842 pregnancies (31.6%; 95% CI 28.5-34.8%). There was no significant difference in this proportion between intrauterine and ectopic pregnancies [246/769 (32.0%) versus 21/73 (28.8%), P = 0.60]. LIMITATIONS, REASONS FOR CAUTION: This was a retrospective study and so did not address the conception rate according to the laterality of ovulation. WIDER IMPLICATIONS OF THE FINDINGS: Our findings were very similar to the frequency of ectopic pregnancies found contralateral to the corpus luteum described in previous studies. Ovum pick-up from the cul-de-sac probably occurs reasonably frequently and is unlikely to have a causative role in the pathogenesis of ectopic pregnancy. It is not known how often this phenomenon occurs in women with intact Fallopian tubes. STUDY FUNDING/COMPETING INTEREST(S): No specific funding was obtained. The authors have no conflicts of interest to declare.