Conservative versus radical surgery for tubal pregnancy: a review

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Authors' objectives
To evaluate whether conservative surgery renders a better fertility prognosis than radical surgery as regards tubal pregnancy, and whether conservative surgery increases the recurrence rate as compared to radically-treated tubal pregnancy.

Searching
Index Medicus and reference lists were searched manually for relevant studies published in English, German or Nordic languages.

Study selection
Study designs of evaluations included in the review
Retrospective comparative and noncomparative studies, prospective uncontrolled studies, and randomised controlled trials (RCTs) were included.

Specific interventions included in the review
Radical (salpingectomy or tubal resection with blind occlusion) and conservative (any surgical intervention that attempts to preserve the tubal passage) tubal surgery.

Participants included in the review
Women with, or who had had a tubal pregnancy were included.

Outcomes assessed in the review
The intra-uterine pregnancy rate and repeat ectopic pregnancy rate were assessed.

How were decisions on the relevance of primary studies made?
The author does not state how the papers were selected for the review, or how many of the reviewers performed the selection.

Assessment of study quality
The author does not state that they assessed validity.

Data extraction
The authors does not state how the data were extracted for the review, or how many of the reviewers performed the data extraction.

Methods of synthesis
How were the studies combined?
For each study, the rate of women achieving intra-uterine pregnancy, and the repeat rate of ectopic pregnancy was calculated with 95% confidence intervals (CIs). Studies were grouped according to study design.

How were differences between studies investigated?
Trials were analysed according to study design. No test of heterogeneity is discussed.

Results of the review
Forty studies (n=4,832) were included:

- 15 noncomparative, retrospective studies (n=1,383);
- 15 comparative, retrospective studies (n=2,965); and
- 10 prospective, selected treatment series (n=484).

Pooled results from retrospective, noncomparative studies.

No statistically-significant difference was found between intra-uterine pregnancy rates following conservative or radical tubal surgery; these were 46% (95% CI: 41.7, 51.0) and 44% (95% CI: 40.7, 47.3), respectively.

Repeat ectopic pregnancy rate was 10% (95% CI: 7.8, 13.6) following conservative surgery and 15% (95% CI: 12.8, 17.5) after radical surgery. No statistically-significant difference was shown.

Pooled results from retrospective, comparative studies.

Only 1 of the 15 papers showed a significant difference between intra-uterine pregnancy rates following conservative or radical tubal surgery; this was in favour of the conservative surgery.

None of the papers demonstrated a significant difference in repeat ectopic pregnancy rates between the two groups.

Prospective, uncontrolled trials.

The average intra-uterine pregnancy rate was 57% (95% CI: 53.5, 62.7) after conservative surgery. Only 2 studies compared conservative and radical surgery, and no difference was found. The average repeat ectopic pregnancy rate was 13% (95% CI: 10.4, 16.9) after conservative tubal surgery.

No RCTs were identified.

Authors' conclusions
The review showed no significant difference between radical or conservative surgical treatment for tubal pregnancy with regard to intra-uterine pregnancy rate or repeat ectopic pregnancy rate. The review highlights the need for a RCT.

CRD commentary
Poor search strategy. Apart from study design, little detail is given about the included trials, or how they were selected. The results are clearly presented, but further research in this area may be required.

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