Conservative management of abnormally invasive placentation  
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CRD summary
The authors concluded that abnormally invasive placentation can be managed conservatively and fertility can be preserved. The review methods were not reported, and a more cautious conclusion may have been more appropriate given the limited evidence from the small number of patients reported in observational studies.

Authors' objectives
To evaluate the efficacy and safety of conservative management of abnormally invasive placentation.

Searching
MEDLINE and EMBASE were searched from 1985 to May 2006 for studies published in English, French, German, Spanish and Dutch; the search terms were reported. In addition, the reference lists of retrieved reports were screened.

Study selection
Studies that evaluated initial nonsurgical treatments in women with placenta accreta, increta or precreta in which either part or all of the placenta was left in situ were eligible.; treatment could include interventions such as methotrexate and arterial embolisation. Studies had to report sufficient data about delivery, complications and follow-up.

All of the included studies were case reports or case studies. The participants in the included studies received conservative treatment without any additional interventions, methotrexate with or without arterial embolisation, or arterial embolisation alone. The gestational age, where reported, ranged from 17 to 43 weeks. The review reported the number of women with failure of conservative treatment, secondary treatments, complications, subsequent pregnancies and the outcome of these pregnancies.

The authors did not report the methods used to select studies.

Assessment of study quality
The authors did not state that they assessed validity.

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

Methods of synthesis
The studies were combined in a narrative. Studies with more than 10 patients were discussed separately. Studies with fewer than 10 patients were grouped by intervention and the numbers of women with the outcomes of interest were reported.

Results of the review
Fifty reports (n=91) were included: 48 case reports with fewer than 10 patients (n=60) and 2 case series with more than 10 patients (n=31).

Case reports with fewer than 10 patients (n=60).

No additional management (n=26): the placenta had been partially removed in the majority of women (19 out of 26). Conservative treatment failed in 4 women; all underwent hysterectomy. Three women subsequently became pregnant, two underwent Caesarean section followed by hysterectomy for recurrent abnormally invasive placentation, and one underwent vaginal delivery with manual removal of placenta.

Conservative management with methotrexate (n=22, including 2 women who received adjuvant selective arterial
embolisation): in most women the entire placenta was left in situ. Treatment failed in 5 women; one underwent hysterectomy and the other four developed vaginal bleeding (three had failed manual removal of placenta). Complications included infection (4 cases), fever (5 cases) and mild vaginal bleeding (4 cases). Two women subsequently experienced uneventful pregnancies.

Arterial embolisation (n=12): most women were diagnosed antenatally (9 cases) and the entire placenta was left in situ. Treatment failed in 3 women; all required hysterectomy. Complications included mild endometritis (2 cases) and vaginal bleeding (2 cases). Three women subsequently experienced uneventful pregnancies without recurrence of abnormally invasive placentation.

Case series with more than 10 patients

The authors stated that there was insufficient information about patients, method of delivery, treatment plans, complications and follow-up to provide data comparable to the smaller case series.

Authors' conclusions

Conservative management of abnormally invasive placentation can be effective and fertility can be preserved, but it should only be considered in selected cases with minimal blood loss and where preservation of fertility is desired.

CRD commentary

The review question was clear with respect to the participants, outcomes and interventions. The inclusion of studies of any design was appropriate given that only case series were identified. The search included attempts to minimise language but not publication bias. Methods used during the review process were not reported, so it is not known whether any efforts were made to reduce reviewer error and bias, and this makes it difficult to confidently assess the reliability of the review. In view of the limitations of the data, the methods used to summarise the studies seem appropriate. The authors acknowledged the limitations of evidence from a small number of patients reported in observational studies in their discussion, but these limitations are not reflected in their conclusion and a more cautious conclusion may have been more appropriate.

Implications of the review for practice and research

Practice: The authors stated that conservative treatment of placenta precreta should only be used in highly selected cases with minimal blood loss, haemodynamic stability and the wish to preserve fertility. Patients who are managed conservatively require close surveillance using imaging techniques.

Research: The authors stated the need for further research to evaluate the use of selective arterial embolisation and methotrexate in the management of abnormally invasive placentation. Ideally, a randomised controlled trial is required to compare the safety, efficacy and effects of various treatments for abnormally invasive placentation.

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