

Clinical and ultrasound characteristics of early abdominal ectopic pregnancy

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AIM

To compare clinical and sonographic characteristics of first trimester abdominal ectopic pregnancy (AEP) with those of tubal ectopic pregnancy (TEP), and to define ultrasound-based diagnostic criteria for early AEP.

METHODS

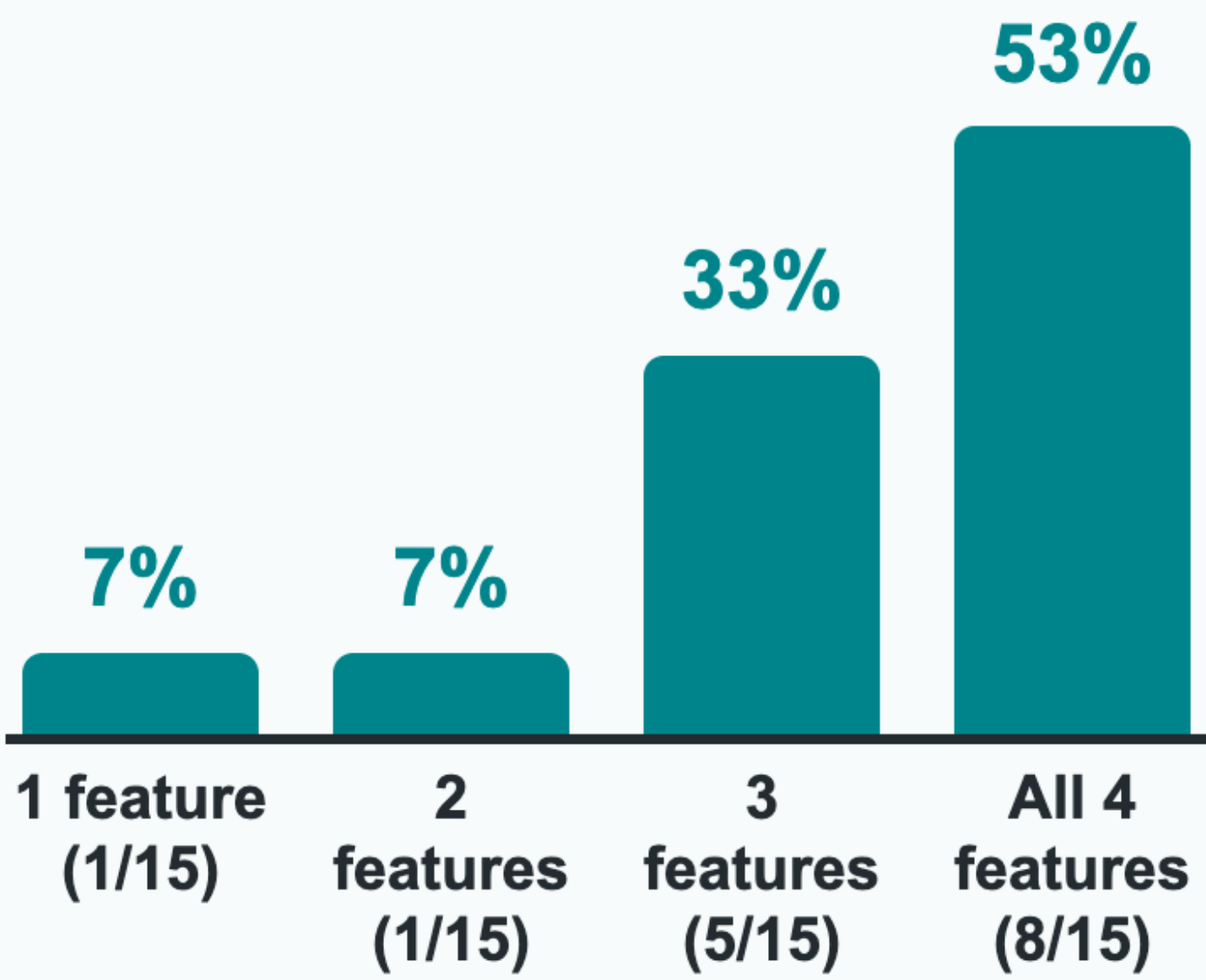
- Case-control study comparing cases of early AEP with controls with TEP between May 2008 and May 2025
- Demographic, clinical and ultrasound findings and clinical outcomes compared between the two groups
- Key ultrasound features of first-trimester AEP described and used to develop refined diagnostic criteria

RESULTS

Outcome	AEP (n = 19)	TEP (n = 57)	Unadjusted OR (95% CI)	P-value	Adjusted* OR (95% CI)	P-value
Conception via IVF	6 (32)	5 (9)	4.80 (1.27 - 18.2)	0.02	5.02 (1.24 - 20.2)	0.02
Vaginal bleeding	5/18 (28%)	40 (70%)	0.16 (0.05 - 0.53)	0.003	0.17 (0.05 - 0.64)	0.009
Operative blood loss ≥ 500ml†	4/16 (25)	1/36 (3)	11.7 (1.18 - 115)	0.04	+	-
Blood transfusion	4 (21)	0/56 (0)	+	0.003	-	-

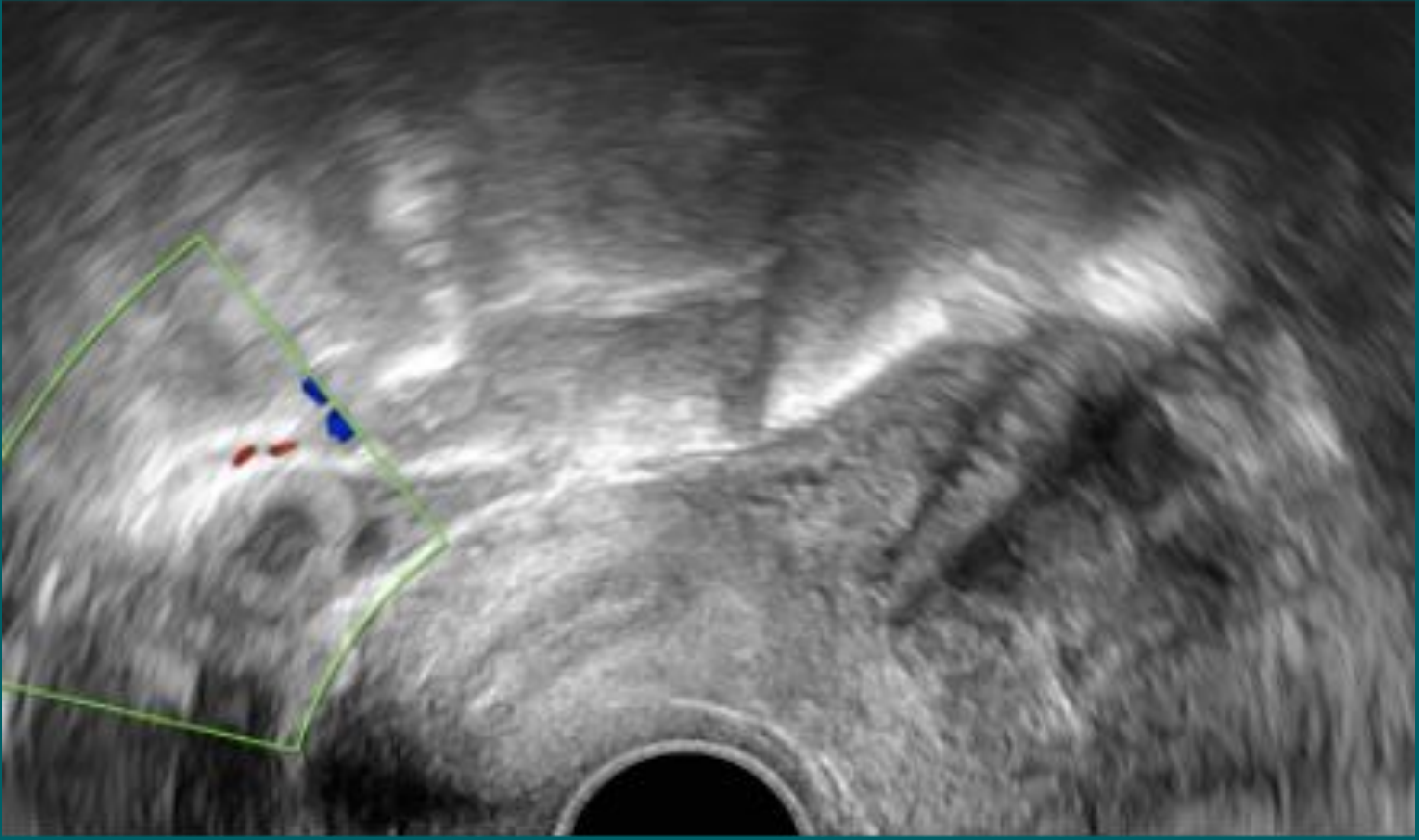
Data are given as n (%) or n/N (%). *Adjusted for previous termination of pregnancy, previous ectopic pregnancy and mode of conception. †Not included in adjusted analysis due to low event rate

NO. OF DIAGNOSTIC FEATURES PRESENT AT ULTRASOUND (N=15)



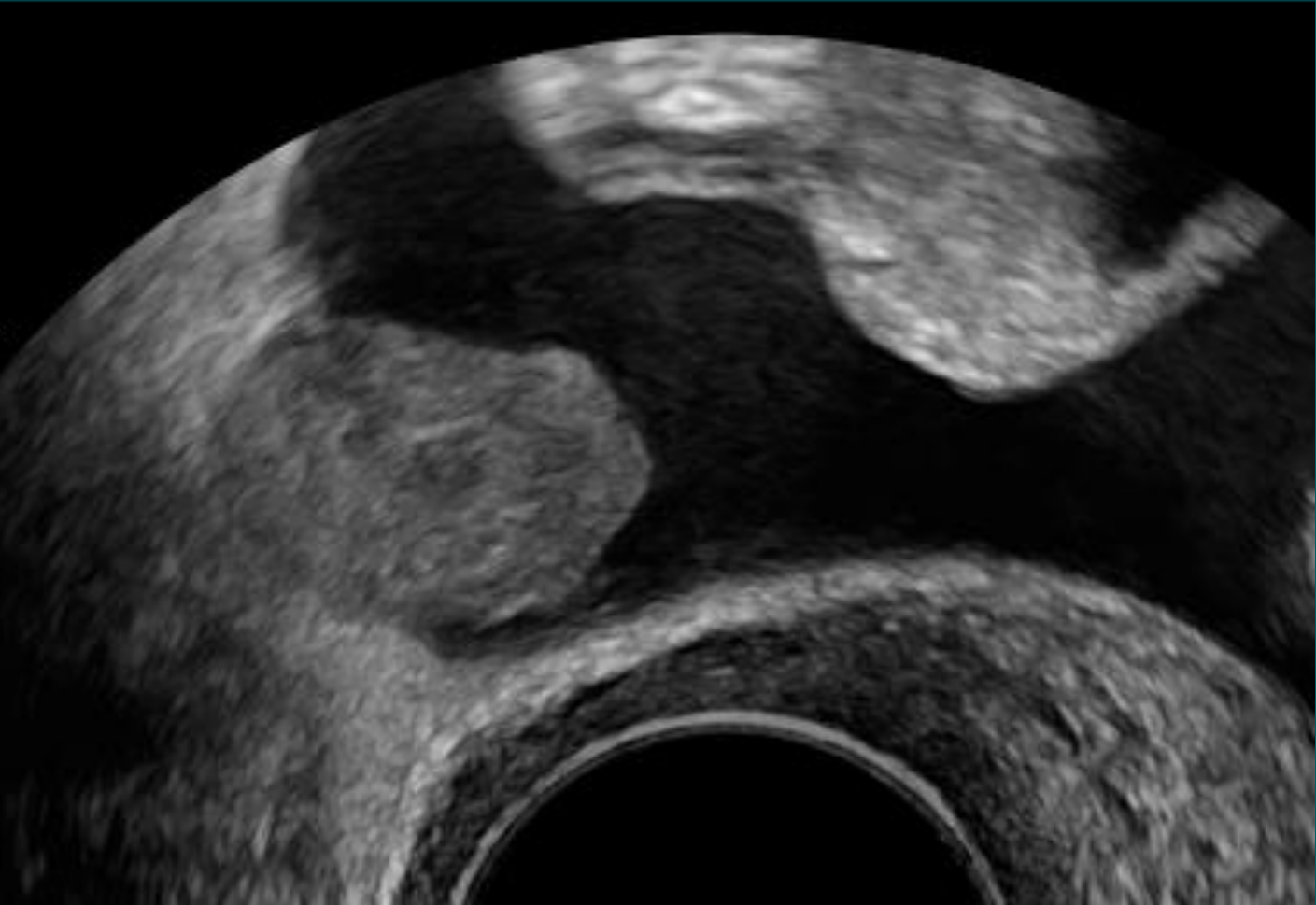
DIAGNOSTIC ULTRASOUND CRITERIA FOR AEP

1.



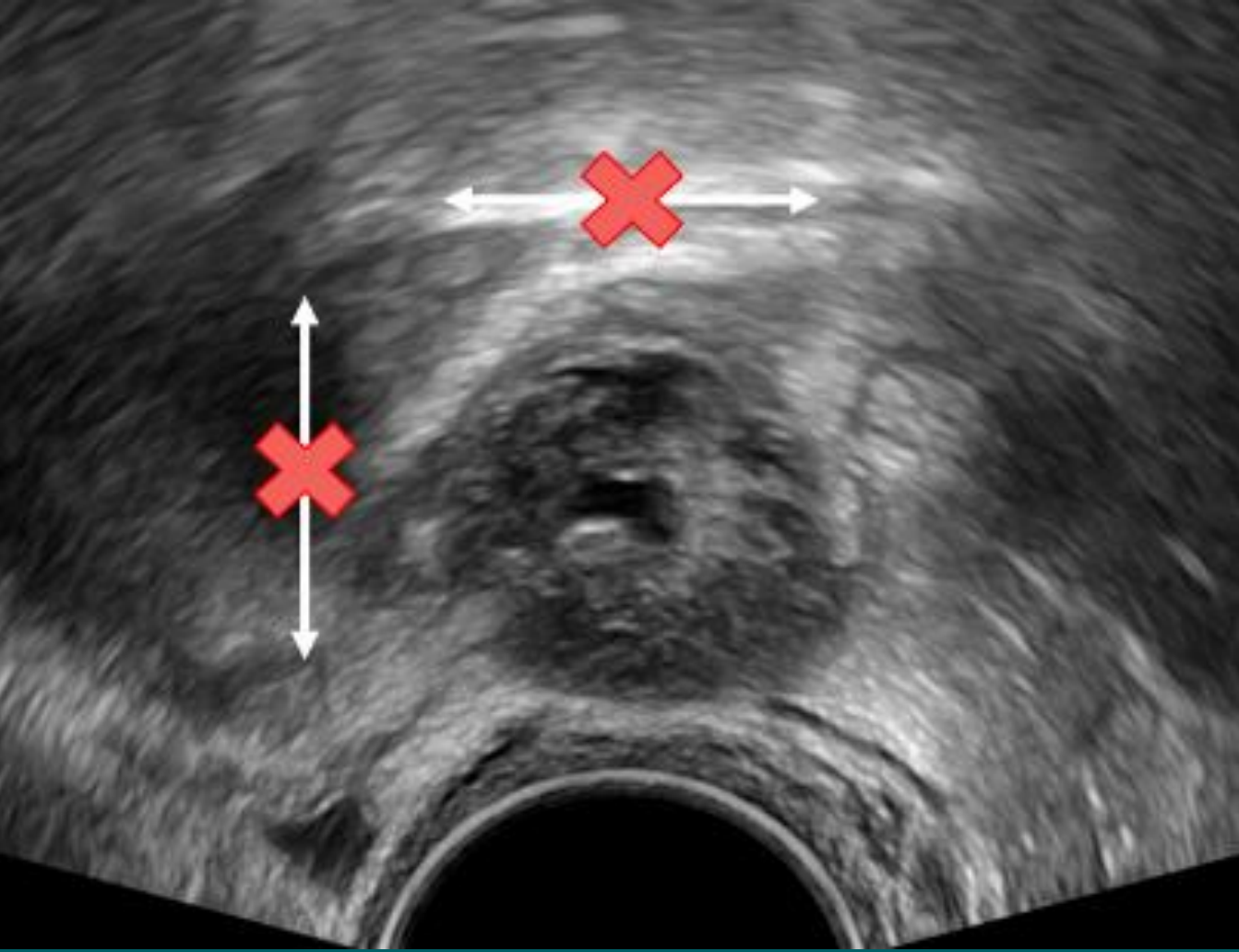
Separate to uterus and ovaries

2.



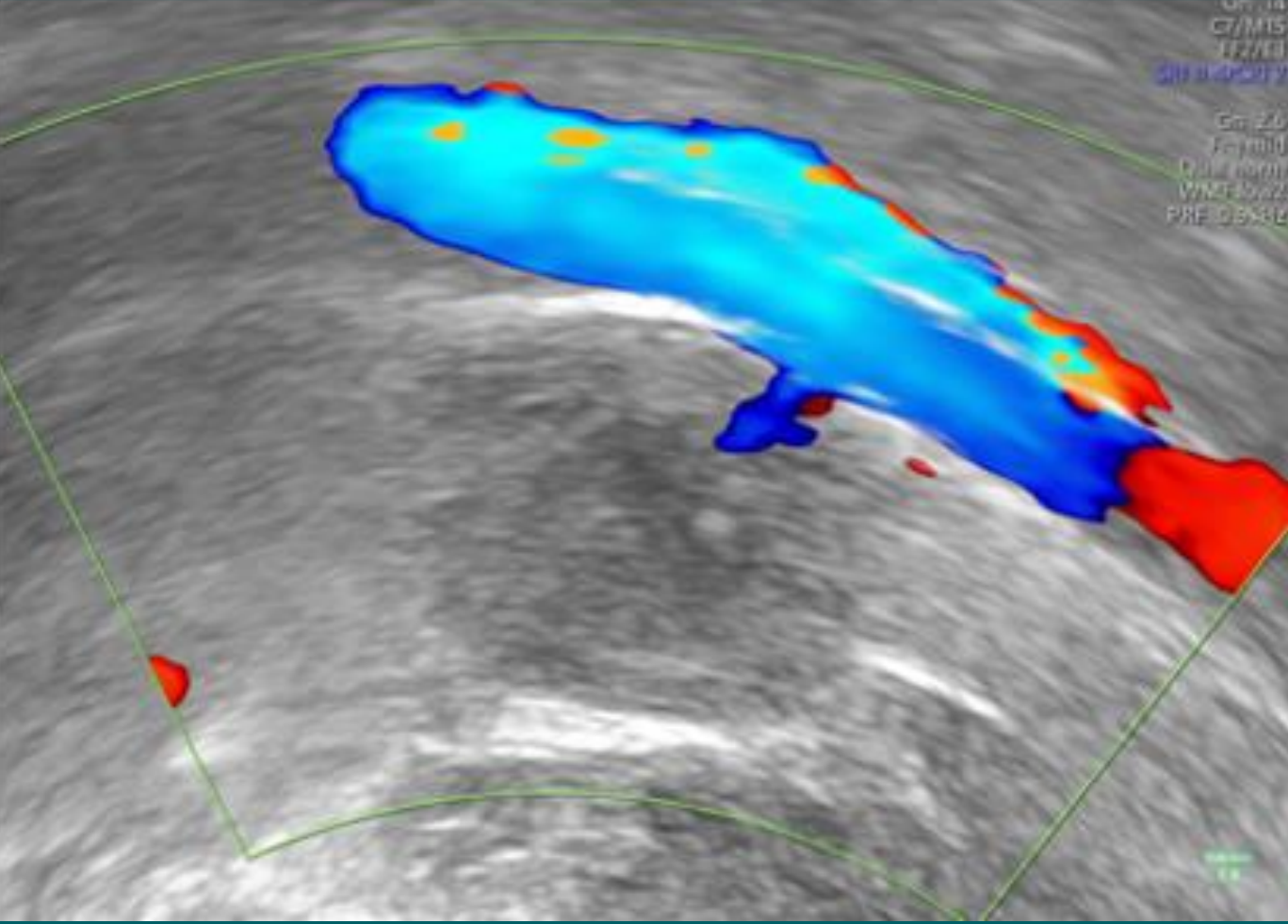
Absent overlying tissue layer

3.



Negative 'sliding organs' sign

4.



Peritoneal implantation confirmed on Colour Doppler

CONCLUSIONS

- Assisted conception is a significant risk factor for a pregnancy implanting into the abdominal cavity.
- Early ultrasound diagnosis of AEP is important to reduce the risk of major intra-abdominal bleeding, which is significantly higher in AEP compared with TEP.