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EP15.02 Crystal View double-contour: a new sign for differentiating endometrial pseudocyst from true gestational sac in early IVF pregnancies

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EARLY DIAGNOSIS
BETTER DECISIONS
BETTER OUTCOMES



OBJECTIVE

To describe and evaluate the diagnostic performance of a novel ultrasound sign visualized using Crystal View rendering mode for differentiating intra-endometrial pseudocyst from true early gestational sac.



METHODS

- Prospective observational study
- 88 women presenting 20 days after single blastocyst transfer with an intrauterine cystic structure detected on transvaginal ultrasound
- Examinations were performed using the Samsung HERA Z20 with activation of Crystal View rendering mode
- "Double-contour sign" defined as two clearly delineated concentric echogenic borders

RESULTS



88

women with a positive pregnancy test included



74

viable intrauterine pregnancies



12

miscarriages



2

ectopic pregnancies

8

pseudocysts identified

2 associated with ectopic pregnancies
6 adjacent to a gestational sac



Sign present in
76/86
of true gestational sacs

Absent in
all
pseudocysts



AUC
0.94



Sensitivity
88.4%



Specificity
100%

At 4 weeks after embryo transfer



Double-contour sign present in all confirmed true gestational sacs

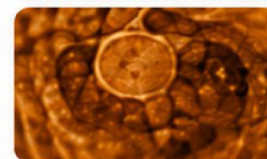
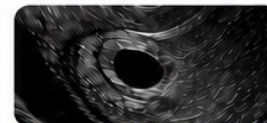


Absent in all pseudocysts, yielding a sensitivity and specificity of 100% in this cohort

CRYSTAL VIEW RENDERING MODE

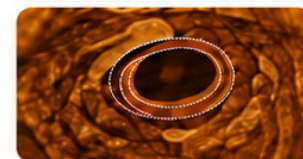
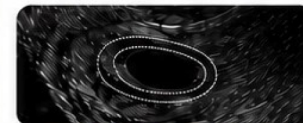
PSEUDOCYST

(absent double-contour sign)



TRUE GESTATIONAL SAC

(present double-contour sign)



CONCLUSIONS



The Crystal View double-contour sign may represent a reproducible ultrasound marker for distinguishing endometrial pseudocysts from true gestational sacs in very early pregnancy. Larger multicentre studies are needed to validate its diagnostic accuracy.



KEYWORDS: 3D/4D, Miscarriage, Infertility, Assisted reproduction.