

4310588 Novel ultrasound and surgical based endometriosis severity staging systems: a retrospective cohort pilot study.

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Introduction

Existing point score-based endometriosis staging systems have not been reproducible when externally validated, demonstrate poor inter/intra-observer agreement, do not integrate ultrasound and surgical features.

Methods

Retrospective cohort study, novel ultrasound and surgical based staging systems developed based on univariate analysis to identify features that best predict surgical complexity. Internal validation and comparison to existing systems.

Results

n = 586. 8 novel staging systems developed, compared with 4 existing systems. Results shown in tables 1,2.

Ultrasound

3 stage tree	4 stage tree	3 stage table	4 stage table	UBESS (3 stage)	mUBESS (4 stage)
0.53 (0.43 to 0.63)	0.59 (0.50 to 0.68)	0.53 (0.48 to 0.58)	0.50 (0.45 to 0.55)	0.51 (0.46 to 0.56)	0.42 (0.37 to 0.47)

Surgical

3 stage tree	4 stage tree	3 stage table	4 stage table	rASRM	2021 AAGL
0.78 (0.71 to 0.85)	0.66 (0.57 to 0.74)	0.67 (0.62 to 0.71)	0.58 (0.54 to 0.63)	0.40 (0.35 to 0.46)	0.44 (0.39 to 0.50)

Table 1,2: Endometriosis stage agreement with surgical complexity level by weighted kappa



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Conclusion

Simple threshold-based endometriosis staging systems can be developed with both a surgical and ultrasound arm, using univariate analysis rather than expert opinion to determine appropriate features. They have the potential to outperform existing systems