

EP02.33 **Comparison of dagnostic performance between senior and junior radiologists using subjective assessment vs ovarian-adnexal reporting and data system**

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AIM

To compare the diagnostic performance of subjective assessment and O-RADS between senior and junior radiologists in ovarian adnexal lesions.

METHODS

This was a retrospective study and included 364 patients with 414 ovarian-adnexal lesions (30 malignant and 384 benign), all confirmed by pathological examination. A senior radiologist and a junior radiologist independently diagnosed all lesions using subjective assessment and O-RADS, respectively. Diagnostic indices including sensitivity, specificity, and accuracy were compared. The consistency of O-RADS classification between the two radiologists was analyzed.

RESULTS

For the senior radiologist, the accuracy of subjective assessment (96.6%, 400/414) was significantly higher than that of O-RADS (89.1%, 369/414); compared with subjective assessment, O-RADS significantly decreased specificity (97.9% vs. 90.1%, $\chi^2=20.812$, $P<0.001$) and accuracy ($\chi^2=17.538$, $P<0.001$), while sensitivity showed no significant change (80.0% vs. 76.7%, $\chi^2=0.098$, $P=0.754$). For the junior radiologist, O-RADS significantly improved sensitivity compared with subjective assessment (76.7% vs. 46.7%, $\chi^2=5.711$, $P=0.017$), with no significant decreases in specificity (95.3% vs. 97.1%, $\chi^2=1.756$, $P=0.185$) or accuracy (94.0% vs. 93.4%, $\chi^2=0.082$, $P=0.775$). The O-RADS classification consistency between the senior and junior radiologist was moderate (Kappa=0.475, $P<0.001$).

Conclusion

Senior radiologists should prioritize subjective assessment to maximize diagnostic accuracy, while junior radiologists can significantly benefit from O-RADS to improve sensitivity in diagnosing malignant lesions.

Table 1 Ovarian-adnexal reporting and data system (O-RADS) classification consistency between the senior and junior radiologist (moderate consistency)

O-RADS classification by the senior radiologist \ O-RADS classification by the junior radiologist	2	3	4	5	Total
	0	2	3	4	5
0	7	0	0	1	8
2	297	6	0	1	304
3	22	15	1	2	40
4	20	4	14	10	48
5	3	0	3	8	14
Total	349	25	18	22	414

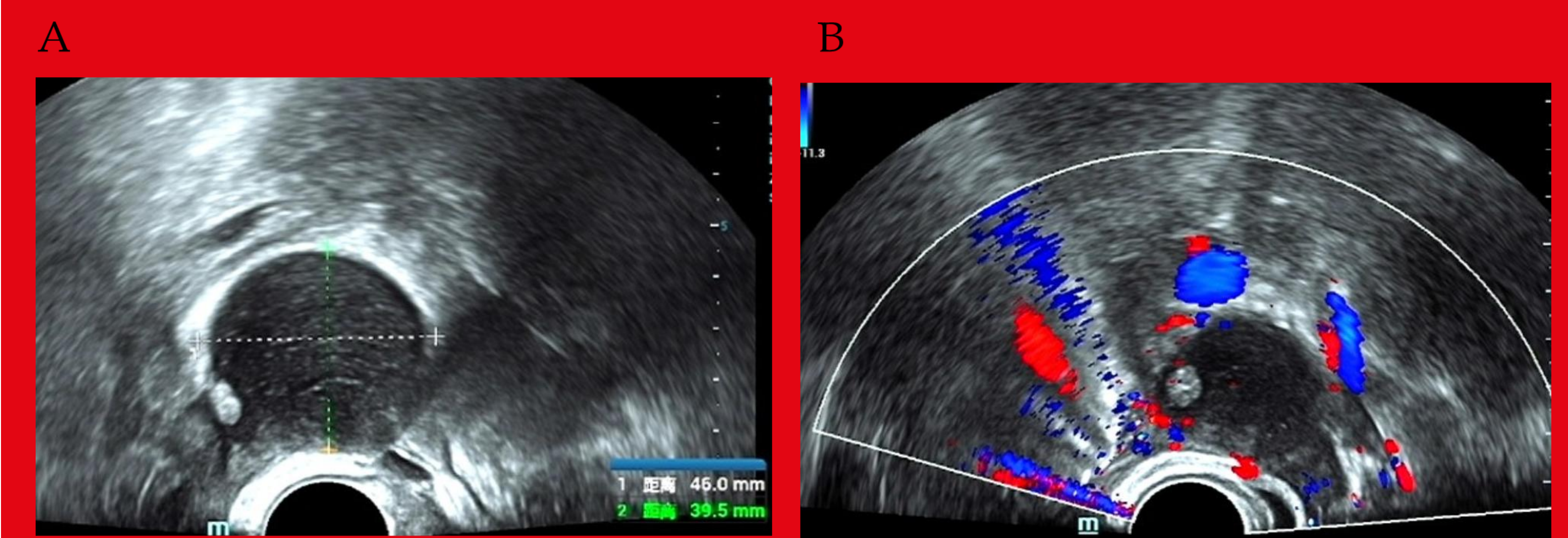


Figure 1 Pathologically confirmed serous borderline cystadenoma with inconsistent ovarian-adnexal reporting and data system (O-RADS) classifications between the senior and junior radiologist. A. Unilocular-solid cyst with a smooth internal wall, low-level cystic content, and a solid papillary projection. B. Minimal blood flow detected in the papillary projection (score = 2). The junior radiologist classified the lesion as O-RADS 2 and diagnosed it as a benign cystic teratoma, whereas the senior radiologist classified it as O-RADS 5 and diagnosed it as serous cystadenocarcinoma.