

Value of selective venous catheterization in the diagnosis of hyperandrogenism

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Objective: To discuss the clinical utility of ovarian vessel sampling in the context of the evaluation and treatment of ovarian hyperthecosis.

Design: Patient presentation in video format, ovarian vessel sampling demonstration, surgical technique explanation, surgical histology discussion and ovarian hyperthecosis review.

Setting: Academic medical center.

Patient(s): A 30-year-old nulligravid female presented with severe hyperandrogenic features, consistent with polycystic ovary syndrome.

Intervention(s): During the course of her diagnostic evaluation, she underwent selective ovarian and adrenal vein sampling.

Main Outcome Measure(s): Assessment of ovarian vessel testosterone levels and review of final histologic findings.

Result(s): Selective ovarian and adrenal vein sampling revealed right ovarian testosterone levels that were 200 times the upper limit of normal. As occult malignancy was a concern, laparoscopy was performed, with nearly complete removal of the right ovarian stroma. Pathology revealed ovarian stromal hyperthecosis without evidence of malignancy.

Conclusion(s): Selective venous sampling is a technically challenging procedure, which may help localize an occult malignancy in limited circumstances. In utilizing selective venous sampling, one must consider the limitations of the test, potential for false positive results, and possibility of unnecessary surgical interventions. (Fertil Steril® 2017;108:1085. ©2017 by American Society for Reproductive Medicine.)

Key Words: Hyperandrogenism, ovarian hyperthecosis, polycystic ovarian syndrome, ovarian vessel sampling

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SUGGESTED READING

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