Objective:
The objective of this work was to analyze and reconstruct in three-dimensions the anatomy of human gynecological specimens using Microcomputed Tomography (Micro-CT).

Methods:
The gynecological specimens were fixed in formalin solutions for 24h and prepared with inorganic iodine for 48h for soft-tissue contrast. Images were acquired using a Micro-CT scanner and image processing was performed using the software CTan (Bruker, Belgium, 2016).

Results:
Specimens of 12 women were examined. All specimens demonstrated excellent soft-tissue contrast at micro-CT examination. The Fallopian tube is very well-defined, including its lumen and vascularization. The ovarian fimbria can be very well defined, demonstrating an important role in the vascularization of the fallopian tube fimbria. The endometrium can be defined and the endometrial glands observed. Segments of the uterine vascularization could be reconstructed in three dimensions. The miometrial segment could not be well-defined with the iodine contrast. The ovary can be reconstructed with an irregular internal vascular pattern.

Conclusion:
Micro-CT can provide highly accurate three-dimensional rendering of human gynecological organs and its complex tri-dimensional anatomy.

Video: Gynecological specimens examined by microtomography