Objective
To determine the learning curve (LC) for assessing myometrial infiltration in cases of endometrial cancer using transvaginal ultrasound (TVS).

Methods
- Five trainees (one staff radiologist and four 4th year OB/GYN residents) participated in this study.
- All trainees had experience on performing TVS, but none of them had specific training on the assessment of myometrial infiltration in cases of endometrial cancer.
- Training program consisted of two parts. In part one, trainees were given one specific lecture and watched videoclips from ten cases explained by the trainer. The method taught for assessing myometrial infiltration was based on the subjective impression. In part two, all trainees had to visualize 50 videoclips of TVS assessment of the uterus from cases of endometrial cancer already treated surgically.
- Definitive histology was used as reference standard.
- All trainees had to state whether myometrial infiltration was > 50% or < 50%. After visualizing each videoclip the trainee was informed whether she/he was right or wrong regarding myometrial infiltration. In case of mistake, the videoclip was revised with the trainer to learn why the mistake. This feedback was considered as essential in the process of learning.
- All trainees performed their evaluations blinded each other.
- LC-CUSUM and standard CUSUM graphics were plotted to determine how many cases were needed to reach competency, allowing a mistake rate of 15% (accuracy reported for expert examiners is about 85%), and to determine whether competency is maintained after reaching competency.

Results
- All trainees completed the study.
- LC-CUSUM graphics showed that four trainees reached competency at the 27th, 33th, 35th and 35th case, respectively.
- Three of them kept process under control after reaching competency and one did not.
- One trainee did not reach competency.

Conclusion
Our study suggests that 30 to 35 cases would be needed to be trained for assessing myometrial infiltration by TVS by visual interpretation of videoclips by most trainees.