Objectives
To evaluate the feasibility of Fusion of SPECT/CT and ultrasound in detecting sentinel lymph nodes in patients with vulvar cancer.

Methods
This is a prospective pilot monocentric study. Patients with vulvar cancer candidate for sentinel lymph node biopsy were enrolled between December 2018 and February 2019. Fusion virtual navigation of SPECT/CT and ultrasound was performed to investigate the tumor draining lymph node. All clinical, imaging, surgical and histological information were collected prospectively and entered into a dedicated Excel file. Feasibility, success of Fusion virtual navigation and time needed to perform the three steps of Fusion were evaluated.

Results
Ten lymph node sites were evaluated. The Fusion virtual navigation was feasible and successfully completed in all draining sites (10/10). The median overall time of Fusion execution was 32 (range 25-40 min) minutes and the time spent for performing Fusion decreased from the first to the last examination.

Conclusion
The present study demonstrated that the Fusion virtual navigation using SPECT/CT and ultrasound is feasible and it is able to detect sentinel lymph nodes in patients with vulvar carcinoma. Fusion using ultrasound scan in detecting sentinel lymph node opens up to multiple diagnostic and therapeutic opportunities in gynecological oncology.