Single-photon emission computed tomography (SPECT) is a nuclear medicine tomographic imaging technique using gamma rays. It is very similar to conventional nuclear medicine planar imaging (that is, scintigraphy) using a gamma camera, but is able to provide true 3D information. This information is typically presented as cross-sectional slices through the patient, but can be freely reformatted or manipulated as required. For better anatomical localization, it is commonly demonstrated with CT fusion images.

To acquire SPECT images, the gamma camera is rotated around the patient. Projections are acquired at defined points during the rotation, typically every 3–6 degrees. In most cases, a full 360-degree rotation is used to obtain an optimal reconstruction. Since late 2017, we have applied this technique in patients with either primary lymphedema or those with suboptimal improvement after surgery. Most patients presented with lower limb lymphedema and the SPECT exam was focused mainly in the pelvic and low abdominal regions, in search for correctable etiologies. Some patients have undergone exploratory laparotomy. We will share our lymphoscintigraphy SPECT experience with correlation of surgical findings.