**WSLS 2018 abstract**

**TITLE**

**Application of Indocyanine Green Lymphography**

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**ABSTRACT**

Indocyanine green (ICG) lymphography is a useful imaging modality for evaluation of lymphedema and detection of lymphatic vessels. Preoperative lymphatic mapping using ICG lymphography is common technique to determine the incision points for LVA, in which lymph lines, identified as linear ICG lymphography patterns, are mapped on the patient’s limbs.

In our practice, for upper extremity lymphedema, 0.1 mL ICG (Diagnogreen 0.25%) is injected intradermally at the second and third web spaces of both hands, at the anterior border of the styloid process of both radii, and at the anterior border of the styloid process of both ulna. For lower extremity lymphedema, 0.1 mL ICG (Diagnogreen 0.25%) is injected intradermally at the second web space of both foots, and at the lateral borders of the Achilles tendons.

ICG distribution changes over time. First 5-15 minutes after the injection is important for lymphatic mapping for the detection of lymphatic vessels, because linear patterns are partially or totally concealed by stardust patterns in early phase after the injections.

For the evaluation of lymphedema, ICG lymphography is performed again 2 hours after the injection, because most of ICG patterns emerge within 2 hours after the ICG injection.

ICG lymphography has limitation in detection lymphatic vessels, because stardust or diffuse patterns sometimes conceal all of lymph lines. Ultrasonography is possible to compensate the limitations in ICG lymphography, because preoperative ultrasonography can be utilized not only to detect appropriate veins for LVA, but also to detect lymphatic vessels itself.

In this session, we want to share our current techniques in ICG lymphography.