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CORRESPONDENCE AND COMMUNICATION

Mono-canalization of adhered lymphatic vessels for lymphatic supermicrosurgery

Dear Sir,

Supermicrosurgical lymphaticovenular anastomosis (LVA), or lymphatic supermicrosurgery is becoming a treatment option for progressive lymphedema.[1—4] In lymphatic supermicrosurgery, a lymphatic vessel is anastomosed to a recipient vein in an intima-to-intima coaptation manner to prevent anastomosis site thrombosis. We sometimes face a situation where there are 2 lymphatic vessels that seem 1 lymphatic vessel before transection because of inflammatory change and adhesion to each other (Figure 1). In such a case, a risk of catching backwall or septum-like intercalated wall would be higher than conventional one-to-one LVA. To address this challenge, we developed a new technique for technical simplification of anastomosing an end of 2 adhered lymphatic vessels.

There was an end of 2 lymphatic vessels adhered to each other due to previous inflammation. Septum-like intercalated wall was cut using microscissors; the vessels' 2 orifices were made 1 orifice. After mono-canalization, the new orifice could be easily expanded, and anastomosis procedures become much safer and easier. The mono-canalized lymphatic end could be anastomosed to a vein in an intima-to-intima coaptation manner with less risk of catching wall (Figure 2). Intraoperative indocyanine green lymphography showed good anastomosis patency (Supplemental Digital Content Video 1).[5]

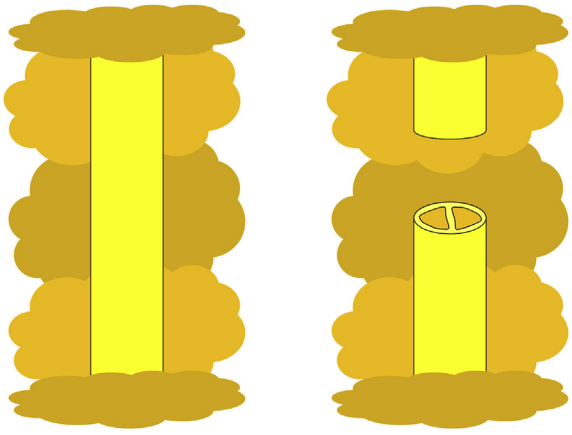

Figure 1 Two lymphatic vessels adhered to each other. Before transection, there seems 1 lymphatic vessel (left). After transection, it is clarified that there are 2 lymphatic vessels (arrows, right).

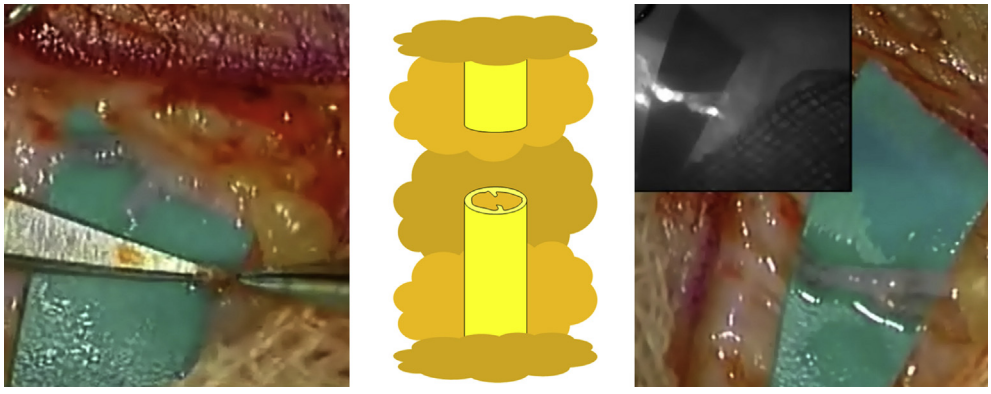

Figure 2 Mono-canalization technique. Septum-like intercalated wall between 2 lymphatic vessels adhered to each other is cut using microscissors (left). After mono-canalization, the lymphatic vessels' end with the new orifice can be safely anastomosed to a recipient vein with less risk of catching wall (center). Intraoperative indocyanine green lymphography shows good anastomosis patency (right).

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Supplementary video related to this article can be found at http://dx.doi.org/10.1016/j.bjps.2014.07.022.

The following is the supplementary data related to this article:

Although the mono-canalization technique can be applied in limited situations, the technique can be a useful option to simplify technical procedures for anastomosing an end of 2-orifice lymphatic vessels. Further clinical studies are required to refine procedures and confirm the efficacy of the technique.

Conflict of interest

None.

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None.

Ethical approval

N/A.

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