

# Intralesional Endoscopy and Septectomy as a Diagnostic Tool and Treatment Method for Lymphatic Malformations

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## New Insights and the Importance for the Pediatric Surgeon

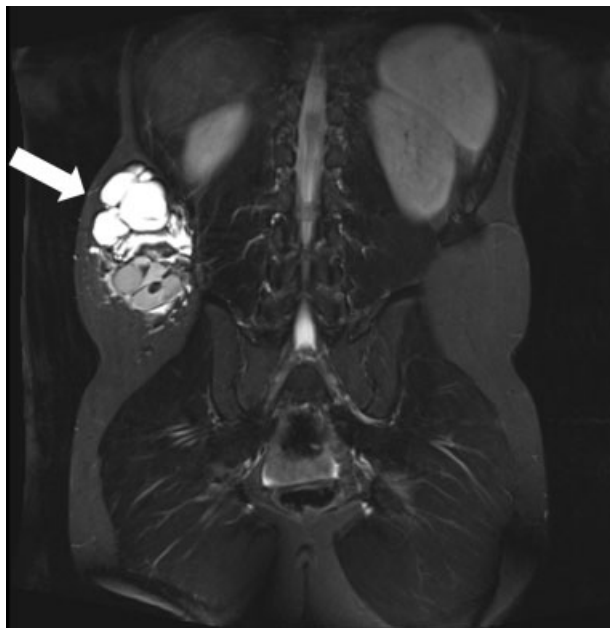
Current treatment options for lymphatic malformations are expectant management, sclerotherapy, and surgical resection. Intralesional endoscopy and intercystic septectomy constitute a promising supplementary treatment method for subcutaneous lymphatic malformations. By creating a single, communicating cavity, the efficacy of subsequent sclerotherapy may be increased, and thus the need for multiple treatment sessions may be avoidable.

## Case Report

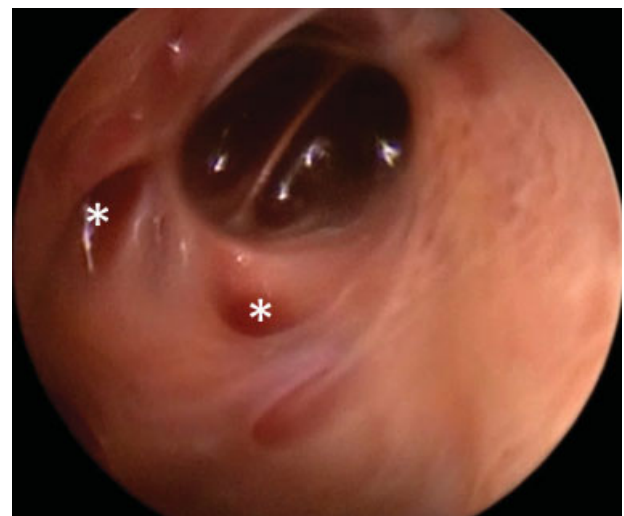
Sclerotherapy and surgery are both effective treatment methods for lymphatic malformations.<sup>1,2</sup> However, recurrence due to incomplete resection is a common problem, often necessitating multiple treatment sessions.<sup>2</sup> Intralesional

endoscopy has been described as a diagnostic approach and potential therapeutic tool.<sup>1,3</sup>

We report a case of a 12-year-old male patient who presented with a mainly subcutaneous mixed lymphatic malformation located on the right flank (→Fig. 1). After suffering a direct trauma, the lesion had increased markedly in size and surgical intervention was indicated due to the associated pain. Intralesional endoscopy was performed that showed a mixed macro-/microcystic lymphatic malformation with hemorrhage (→Fig. 2). Intercystic septa were dissected under endo-



**Fig. 1** Coronal T2 magnetic resonance imaging (MRI) with a subcutaneous mixed macro-/microcystic lymphatic malformation on the patient's right flank (white arrow).



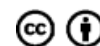
**Fig. 2** Intraoperative image showing a macrocystic cavity and many small fluid-filled cysts (asterisks), which are separated by thin septae.

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scopic visualization. At the end of the procedure, a single macrocystic cavity had been artificially created. Picibanil (OK-432) was inserted into the cavity and left in situ for 24 hours (► **Video 1**). The patient had no visible swelling, no pain, and merely two small, well-healed scars at 2 months of follow-up.

#### Video 1

Under sonographic guidance, the largest cyst of the lymphatic malformation was cannulated, and an 8 French pigtail catheter was advanced into the cyst over a guidewire. The cyst was filled with 0.9% sodium chloride solution to facilitate the placement of two 3-mm trocars into the cyst. Intralesional endoscopy showed a mixed macro-/microcystic lymphatic malformation with hemorrhage. Dissection of intercystic septa was performed under endoscopic visualization using hook electrocautery and blunt dissection. At the end of the procedure, a single macrocystic cavity had been artificially created. Picibanil (OK-432) was instilled through the formerly inserted pigtail catheter into the now solitary cyst and left in situ for 24 hours. Online content including video sequences viewable at: [www.thieme-connect.com/products/ejournals/html/10.1055/s-0037-1606388](http://www.thieme-connect.com/products/ejournals/html/10.1055/s-0037-1606388).

Intralesional endoscopy and intercystic septectomy constitute an interesting novel approach for the diagnosis and treatment of mixed lymphatic malformations. By creating a single, communicating cavity, the efficacy of subsequent sclerotherapy may be increased, and thus the need for multiple treatment sessions may be avoidable.

#### Conflict of Interest

None.

#### References

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