



2019 Health Technology Reassessment Report

Safety and Effectiveness Assessment of Operation for Osmidrosis or Hyperhidrosis by Liposuction

Summary

□ **Background**

The Health Insurance Review & Assessment Services (HIRA) sought the opinions of relevant academic societies on the items that had been listed in the non-coverage list before the introduction of the New Health Technology Assessment system to determine whether their coverage statuses could be changed (to preliminary coverage). Subsequently, HIRA requested the Korea National Evidence-based Healthcare Collaborating Agency (NECA) to perform health technology reassessment. "Operation for Osmidrosis or Hyperhidrosis by Liposuction" has a strength; it is minimally invasive compared with other surgical treatments, but there are risks of incomplete removal and recurrence. The need for the safety and effectiveness assessment of the technology was suggested by the Korean Society of Plastic and Reconstructive Surgeons.

□ **Subcommittee Operation**

During the NECA reassessment staff researcher meeting, it was determined that plastic surgery, dermatology, thoracic and cardiovascular surgery, and evidence-based medicine would be appropriate for assembling a subcommittee. Accordingly, experts in the corresponding areas were randomly selected from the pool of expert assessment committee members per specialty in the New Health Technology Assessment, and a subcommittee composed of 7 members was created with 1-2 members per specialty. The subcommittee held 3 meetings.

□ **Purposes and Methods**

In this study, a systematic review was performed to assess the clinical safety and effectiveness of operation for osmidrosis or hyperhidrosis by liposuction. During the health technology assessment, the service was defined based on the specifications provided by the HIRA (Jo 33). The final decision on the scope and methods of the health technology assessment was made based on the subcommittee's review.

□ Results

A total of 13 articles were included for the safety and effectiveness assessment of the operation for osmidrosis or hyperhidrosis by liposuction. A analysis was conducted separately for each of axillary osmidrosis and hyperhidrosis.

Regarding axillary osmidrosis, the safety and effectiveness of liposuction was assessed using a total of 6 articles (1 randomized controlled trial, and 5 non-randomized controlled studies). In the randomized controlled trial, the risks of skin necrosis and scar were significantly lower for liposuction than for surgical treatment (RR 2.50; 95% CI 1.00, 6.24), but the recurrence rate was significantly higher. In the non-randomized controlled studies, the risks for hematoma, scar, and contracture were significantly higher after liposuction than after nonsurgical treatment, while there was a significantly greater improvement in osmidrosis (OR 41.40; 95% CI 5.17, 331.71). Compared with surgical treatment, however, there was no significant difference in the risk of complications, and the rate of recurrence was higher for liposuction (OR 11.89; 95% CI 3.24, 43.65).

Regarding axillary hyperhidrosis, the safety and effectiveness of liposuction were assessed by examining 7 articles (3 randomized controlled trials and 4 non-randomized controlled studies). In the randomized controlled trials, liposuction and surgical treatment did not show a significant difference based on the risks of complications. In the non-randomized controlled studies, there was no significant difference based on the risks of complications as well as the effectiveness outcomes.

□ Conclusion

Based on the assessment, the subcommittee for operation for osmidrosis or hyperhidrosis by liposuction stated the following.

It was found that in patients with axillary osmidrosis, liposuction was more effective but less safe than nonsurgical treatment, and it had similar safety and effectiveness as other surgical treatments. In patients with axillary hyperhidrosis, however, the safety and effectiveness of liposuction-based surgical treatment are assessed to be equivalent to those of other surgical treatments.

Based on the subcommittee's review, the Health Technology Reassessment Committee made the following decisions on "operation for osmidrosis or hyperhidrosis by liposuction" (November 8, 2019).

The Health Technology Reassessment Committee recommends the use of "operation for osmidrosis or hyperhidrosis by liposuction" in **patients with axillary osmidrosis** (Grade of recommendation I-b, strength of recommendation: low).

The Health Technology Reassessment Committee recommends the use of "operation for osmidrosis or hyperhidrosis by liposuction" in **patients with axillary hyperhidrosis** (Grade of recommendation I-b, strength of recommendation: low).