

암재활

게시일시 및 장소 : 10 월 19 일(토) 08:30-12:30 Room G(3F)

질의응답 일시 및 장소 : 10 월 19 일(토) 11:00-11:30 Room G(3F)

P 3-122

May Mannitol be a new treatment for refractory lymphedema? : A case report

Hyeonseong Kim^{1*}, Si-Bog Park^{1†}, Kyu Hoon Lee¹, Mi Jung Kim¹, Jaeyoung Lee¹

Hanyang University Medical Center, Department of Rehabilitation Medicine¹

Introduction

Lymphedema is caused by kind of fluid collection state in localized body part. Lymphatic system obstruction which cause by inherited abnormality, trauma, surgery, radiation, parasitic infection, or iatrogenic obstruction brings about edema and dermal thickening. Treatment varies from manual manipulation to surgical treatment, according to its cause. Despite the various treatments, lymphedema tends to progress slowly and refractory.
We report a case of an incidentally observed improvement in refractory lymphedema in patients treated with mannitol.

Case presentation

A 90-year-old woman with refractory lymphedema of left leg suddenly present mental changes and visited an emergency room. Computed tomography of brain revealed intracranial hemorrhage in the left hemisphere. After admission, she had intensive care unit care for intracranial pressure control. Mannitol (20%, 50 ml per 6 hours) and Lasix (5 mg per 6 hours) were immediately given from 1 to 27 hospital days. Surgical procedure was not performed due to her family's refusal and conservative treatment was continued. When the vital sign stabilized, she was transferred to the general ward. Her family was surprised to see her lymphedema improve. After the administration of mannitol was stopped, lymphedema gradually worsened. We had been continuing physical therapy with neurodevelopmental therapy and occupational therapy for right hemiplegia combined with lymphedema therapy, such as complex decongestive physical therapy, intermittent pneumatic compression, and short-stretch bandaging. In 2016 when she admitted to hospital, the circumferences 10 cm and 15 cm below knee were 43 cm, 41cm each. According to her family, her lymphedema aggravated while living at home. However, after mannitol had been given for 27 days, the circumferences 10 cm and 15 cm below knee were 34 cm, 31.5 cm each. On 47 hospital day, her lymphedema become worse despite the various treatments. The circumferences 10 cm and 15 cm below knee increased to 42 cm, 40.5 cm each. To identify the effect of mannitol for lymphedema, mannitol (20%, 50 ml per 6 hours) and Lasix (5 mg per 6 hours) were restarted from 52 to 58 hospital day. As a result, her lymphedema has been improved, and the circumferences 10 cm and 15 cm below knee

decreased to 37 cm, 36 cm each on 53 hospital day. And this improvement has been maintained after mannitol and Lasix were tapered off.

Conclusion

This is the first reported case, to our knowledge, of refractory lymphedema treated with mannitol and lasix. After mannitol and lasix were administered, lower extremity lymphedema has been improved dramatically. In order to clarify the effect of mannitol on lymphedema, further studies on large-scale patients are needed.

Acknowledgment :Reference 1. Carolina Gutierrez, MD, Head and Neck Lymphedema: Treatment Response to Single and Multiple Sessions of Advanced Pneumatic Compression Therapy, *Otolaryngology–Head and Neck Surgery*, 2019, Vol. 160(4) 622–626 2. Seo, Kwan Sik, MD, PhD; The New Possibility of Lymphoscintigraphy to Guide a Clinical Treatment for Lymphedema in Patient With Breast Cancer, *Clinical Nuclear Medicine*: March 2019 - Volume 44 - Issue 3 - p 179–185 3. P Visweswaran, E K Massin and T D Dubose, Mannitol-induced acute renal failure, *Journal of the American Society of Nephrology*, June 1997, 8 (6) 1028-1033