

Research

Educational needs of health care professionals managing genital edema/lymphedema: Findings from a survey in Japan

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ABSTRACT

Aim : To identify the educational needs of health care professionals treating patients with genital edema in Japan.

Methods : This was a cross-sectional study among health care professionals treating patients with lymphedema in Japan. Participants completed an online survey about their experience, knowledge, and confidence in treating genital edema and their needs regarding further education. Participants were divided into two groups according to whether they had received specific training in managing genital edema. We described participants' demographic data and experience, knowledge about genital edema, their confidence in managing the condition, and their needs regarding education on genital edema.

Results : Responses were received from 70 participants; of these, 39% had completed specific training on the management of genital edema, and 61% had not. The health care professionals with genital edema training did not feel confident at all about legal concerns, cultural and ethical concerns, using self-report tools, and assessment documentation. These participants stated that their most important educational needs were patient assessment and outcome measures. The health care professionals without genital edema training felt somewhat confident about skin care and reducing infection risk only. These participants stated that their most pressing education need was regarding skin care and reducing infection risk.

Conclusions : Even professionals who have received training on genital edema are not sufficiently prepared in Japan. Educational programs and resources should be developed to meet the educational needs of health care professionals treating genital edema.

KEY WORDS : genital edema, lymphedema, professional education

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Manuscript received : 22 Apr 2024

Manuscript accepted : 20 Jan 2025

DOI : 10.151010/LRAP.2025.01.20.32

Introduction

Lymphedema is defined as the accumulation of lymphatic fluid in the interstitial space, usually because of impaired lymph vessels or lymph nodes.¹⁾ Lymphedema leads to swelling of soft tissue, chronic inflammation, reactive tissue fibrosis, and abnormal adipose tissue deposition.²⁾ The condition can occur in the genitals, as well as the extremities, where it has been classified as either congenital or acquired.³⁾ Genital edema/lymphedema (genital edema) is often associated with pelvic cancer surgery and radiotherapy. It may also be associated with infections, granulomas, and idiopathic causes.⁴⁾ The overall prevalence of genital edema in men, women, and children is unknown;⁵⁾ however, the condition is thought to account for 0.6% of all lymphedema cases worldwide,¹⁾ which would yield a global figure of approximately 840,000 to 1.5 million cases. The prevalence of genital edema after prostate cancer treatment is estimated to be 0%–22%.⁶⁾ Genital edema is taboo for many people;⁷⁾ many patients are therefore under-treated as a result of their own or health care professionals' embarrassment, lack of confidence, or lack of knowledge.⁸⁾ This is important because untreated genital edema can cause disfigurement and affect sexual function.⁷⁾ It is therefore essential that health care professionals have the knowledge and skills necessary to manage this condition appropriately.

As with any lymphedema, the primary goal of management in genital edema is to control symptoms and reduce progression of the disease.¹⁾ Management is usually via a combination of conservative treatment and surgery.⁹⁾ In general, conservative treatment is helpful to reduce lymphedema before surgery, and surgery helps to stabilize the results of conservative treatment.⁹⁾ Conservative treatment is generally the first-line approach.¹⁰⁾ In conservative treatment, compression bandages and support garments, manual lymphatic drainage, exercise, and skin care to avoid cellulitis are conducted,¹¹⁾ in line with treatment for lymphedema of the extremities. However, the irregular shaping and location of genital edema means that bandaging and support garments can be difficult to apply and require advanced skills on the part of health care professionals.¹¹⁾

Manual lymphatic drainage requires knowledge about the pathology and physiology of genital edema. Education specific to genital edema is therefore important.

A 2021 review found that overall knowledge about lymphedema was low among health care practitioners.¹²⁾ Those authors concluded that structured education on lymphedema was needed for health care professionals, which would improve collaboration on multi-disciplinary teams. A study in Scotland also found that clinicians had unmet needs regarding education about lymphedema, but these needs tended to be specific to both the professionals' specialties and health care setting.¹³⁾ Some studies have examined the educational needs of health care professionals regarding the specific management of genital edema. A study across the United Kingdom (UK) found that only 2% of those surveyed felt that current education on genital edema was sufficient.¹⁴⁾ Only half of respondents had completed specific training, and this group felt more confident about their knowledge. The most common individual needs were related to compression, contemporary surgical and medical management, and patient assessment. An international study explored educational needs regarding the management of genital edema among more than 500 health care practitioners in 31 countries.⁵⁾ Fewer than half of those surveyed (42%) had completed specific training in genital lymphedema, although 92% of respondents believed that such training was necessary. Specific needs identified in the study included compression, clinical reasoning, patient assessment, and psychological and legal issues.⁵⁾

In Japan, education on genital anatomy and pathology is incorporated into education on limb lymphedema. However, it is unclear whether there is sufficient education regarding genital edema for lymphedema health care professionals, and their educational needs are not known. It is also unclear whether education on genital edema differs between Japan and other countries; thus, there may be unique educational needs in Japan. It is important to clarify the educational needs in Japan and develop specific educational programs for the management of genital edema in Japanese patients. The aim of this study was therefore to identify the educational needs of health care professionals managing genital edema in Japan.

Methods

1. Study design and participants

This was a cross-sectional study, conducted from March to November 2020. The participants were health care professionals who were managing patients with lymphedema in Japan. All members of the International Lymphoedema Framework Japan, an organization for professionals who manage lymphedema, and other health care professionals referred by members of this organization, were invited to participate in the survey by email. Those invited were given access to a web-based questionnaire, and those who agreed to participate completed the questionnaire. The questionnaire was anonymous. The study protocol was approved by the Medical Ethics Committee of Kanazawa University (No. 54-2).

2. Questionnaire

This study was part of the Genital Oedema Project, an international study aiming to understand the educational needs of, and tools used by, health care professionals who manage genital edema. Further details of this project can be obtained from the website of the International Lymphoedema Framework (www.lympho.org/genital-lymphoedema). The web-based questionnaire was developed by the organization in English. The questionnaire was translated into Japanese for this study, then back-translated into English for validation. The questionnaire covered participants' demographic data and experience, knowledge about genital edema, their confidence in managing the condition, and topics where they felt that they needed more education. Regarding participants' demographic data and experience, we queried their profession, sex, and years of experience in the field of lymphedema. For knowledge about genital edema, we queried whether participants had received education specific to genital edema, and what kind of treatment was given to patients with genital edema. Regarding participants' confidence in managing the condition, participants answered items about confidence in their knowledge about genital edema using a four-point scale, with responses being not at all confident, somewhat confident, very confident, and not appropriate. Participants were asked to describe the three leading topics where they felt they had unmet

educational needs on genital edema, using free text. Participants were also asked the format in which they would best like an educational tool to be delivered, using a four-point scale (with responses for each format being essential, useful but not essential, not required, and I don't know). The participants were divided into two groups according to whether they had received specific training in managing genital edema; this grouping was made, because our aim was to clarify whether there is sufficient education on genital edema available for health care professionals in Japan.

3. Statistical analysis

Descriptive data are expressed as n (%) for each group. To test whether the distribution of four confidence scale was biased, the χ^2 goodness-of-fit test method and residual analysis were conducted for each knowledge item using IBM SPSS version 26 (IBM Corp., Armonk, NY, USA). A p value of less than 0.05 was considered significant. Free-text answers for the most important educational needs on genital edema were classified into four categories ("Assessment-related items," "Education and service development," "Treatment-related items," and "Supporting/underpinning knowledge") as well as 21 subcategories, using the same approach as in a previous study examining the leading educational needs among health care professionals related to managing genital edema⁵⁾.

Results

1. Participants' demographic data and experience, knowledge about genital edema

A total of 130 people received the email asking them to participate in the study, 70 responses (response rate 54%) were received, all of which were analyzed. Overall, 27 participants (39%) had completed specific training on the management of genital edema, and 43 (61%) had not.

Participants' demographic data and experience, knowledge about genital edema are shown in **Table 1**. The health care professionals with genital edema training included 24 (89%) lymphedema or manual lymphatic drainage therapists, there were, 21 (49%) therapists in the health care professionals without genital edema training. In the professionals with and without genital edema training, most participants were

Table 1 The participants’ demographic data and experience, knowledge about genital edema

	With genital edema training n=27		Without genital edema training n=36	
	n	%	n	%
Profession				
Lymphoedema therapist or MLD/massage therapist	24	89	21	49
Not lymphoedema therapist or MLD/massage therapist	3	11	22	51
Sex				
Women	26	96	37	86
Men	1	4	6	14
How long have you worked in the field of lymphoedema?				
Over 5 years	16	59	23	53
Under 5 years	11	41	20	47
Do you treat patients with genital edema/lymphedema?				
Yes	23	85	11	26
No	4	15	32	74
If you treat patients with genital edema, what treatment options have you used for a patient with genital edema? (select all that apply)^a				
Skin care advice	22	96	9	82
Compression garments	22	96	7	64
Manual lymphatic drainage	21	91	7	64
Exercise	4	17	1	9
Bandaging	10	43	3	27
Kinesiotaping	1	4	0	0
External scar massage/work	1	4	0	0
Wound care skill and knowledge	4	17	4	36
Reductive surgery	3	13	0	0
Lymphatic surgery	6	26	1	9
Dietitian	1	4	1	9
Sexual health	1	4	0	0
Mental health service	1	4	0	0
Do you use a specific assessment document/tool for genital edema or use a patient self-report tool for patients who have genital edema?				
Yes	0	0	0	0
No	27	100	43	100

Note. MLD=Manual lymphatic drainage

^a Health care professionals could select multiple answers.

women (96% and 86%, respectively), and approximately half had worked in the lymphedema field for more than 5 years (59% and 53%, respectively). Overall, 85% of professionals with genital edema training treated

patients with genital edema. However, 74% of professionals without genital edema training did not treat anyone with genital edema. In the professionals with and without genital edema training, the most common

treatment for patients with genital edema was skin care advice (96% and 82%, respectively), compression garments (96% and 64%, respectively), and manual lymphatic drainage (91% and 64%, respectively). No respondents used an assessment document or tool specific to genital edema.

2. Educational needs of edema/lymphedema health care professionals

Of the health care professionals with genital edema training, between 7% and 78% reported that they were “not confident at all” regarding each item. Significantly more respondents said that they did not feel confident at all, versus those who felt somewhat confident or very confident, about legal concerns in treating genital edema (72%, $p<0.01$), cultural and ethical concerns in treating genital edema (54%, $p=0.02$), using self-report tools with genital edema patients (78%, $p<0.01$), and assessment documentation for genital edema (67%, $p<0.01$). The items with which most people felt somewhat confident were anatomy of the female pelvis and connected musculature (60%, $p<0.01$), common pathologies (including cancer types) and medical interventions leading to a risk of genital edema (76%, $p<0.01$), common surgical interventions leading to a known risk of genital edema (71%, $p<0.01$), patient and health care professional factors that affect the provision of treatment for someone with genital edema (62%, $p<0.01$), skin care and reducing infection risk with genital edema (74%, $p<0.01$), self-massage/simple lymphatic drainage for genital edema (70%, $p<0.01$), compression and support garments for genital edema (74%, $p<0.01$), and manual lymphatic drainage for genital edema (65%, $p<0.01$). There was no single item for which more respondents reported feeling very confident (Table 2).

In the health care professionals without genital edema training, between 37% and 92% answered “not confident at all” for each item. More people reported feeling not confident at all than those who reported feeling somewhat confident or very confident regarding common surgical interventions leading to a known risk of genital edema (62%, $p<0.01$), legal concerns in treating genital edema (83%, $p<0.01$), cultural and ethical concerns in treating genital edema (81%, $p<0.01$), overcoming difficult conversations in relation to genital edema (71%, $p<0.01$), using self-report tools with genital

edema patients (92%, $p<0.01$), assessment documentation for genital edema (90%, $p<0.01$), assessment and evaluation techniques for genital edema (85%, $p<0.01$), clinical reasoning for genital edema-related treatment decisions (82%, $p<0.01$), bandaging for genital edema (73%, $p<0.01$), exercise prescription for genital edema patients (83%, $p<0.01$), and awareness of surgical intervention for the management of genital edema (83%, $p<0.01$). The item with which most respondents said they felt somewhat confident was skin care and reducing infection risk with genital edema (59%, $p<0.01$). There was no single item where more respondents stated that they felt very confident (Table 3).

Patient assessment (26%) and outcome measures (19%) were the most pressing educational needs of the health care professionals with genital edema training. Respondents who had not received specific training identified skin care and reducing infection risk (25%) as their most pressing educational need (Table 4). The professionals with genital edema training preferred their educational resources to be in the form of leaflets, booklets or folders containing printed materials (85%); workshops (81%); and e-learning packages (78%) (Table 5). The professionals without genital edema training wanted leaflets, booklets or folders of printed materials (72%); however, their next most popular options were the development of video prescriptions (67%) and collections of case studies (65%) (Table 5).

Discussion

In this study, we examined health care professionals’ confidence in treating genital edema/lymphedema and the educational needs of health care professionals who had and had not received specific training on genital edema/lymphedema. There were two important findings. First, as has been reported in the UK¹⁴ as well as globally,⁵ education on genital edema/lymphedema in Japan may not be sufficient to meet the needs of health care professionals treating this condition. Second, professionals’ main educational needs differed depending on whether specific education on genital edema had previously been received. Respondents who had received specific training on genital edema identified a need for more information about patient assessment and outcome measures. Those who had not received specific

Table 2 A difference in confidence in knowledge for the health care professionals with genital edema training

Topic	Item		With genital edema training n=27				p
			not confident at all	somewhat confident	very confident	not applicable	
Genital edema knowledge	Anatomy of male pelvis and connected musculature ^a	%	48	48	4	0	
		adjusted residual	3.7	3.7	-7.3		<0.01
	Anatomy of female pelvis and connected musculature ^a	%	32	60	8	0	
		adjusted residual	-0.3	6.7	-6.3		<0.01
	Common pathologies (including cancer types) and medical interventions leading to a risk of genital edema ^a	%	12	76	12	0	
		adjusted residual	-5.3	10.7	-5.3		<0.01
Common surgical interventions leading to a known risk of genital edema ^b	%	16	71	13	0		
	adjusted residual	-4.0	9.0	-5.0		<0.01	
Socio-cultural issue	Patient and health professional factors that will impact on providing treatment for someone with genital edema ^c	%	35	62	3	0	
		adjusted residual	0.3	7.3	-7.7		<0.01
	Legal concerns in treating genital edema ^a	%	72	24	4	0	
		adjusted residual	9.7	-2.3	-7.3		<0.01
	Cultural and ethical concerns in treating genital edema ^b	%	54	38	8	0	
		adjusted residual	5.0	1.0	-6.0		0.02
Overcoming difficult conversations in relation to genital edema	%	39	57	4	0		
	adjusted residual	1.3	5.3	-6.7		<0.01	
Assessment & evaluation	Using self-report tools with genital edema patients	%	78	22	0	0	
		adjusted residual	6.5	-6.5			<0.01
	Assessment documentation for genital edema ^b	%	67	29	4	0	
		adjusted residual	8.0	-1.0	-7.0		<0.01
	Assessment and evaluation techniques for genital edema ^c	%	54	46	0	0	0.70
Clinical reasoning for genital edema related treatment decisions ^a	%	56	44	0	0	0.55	
treatment	Skin care and reducing infection risk with genital edema	%	11	74	15	0	
		adjusted residual	-6.0	11.0	-5.0		<0.01
	Self-massage/simple lymphatic drainage for genital edema	%	8	70	22	0	
		adjusted residual	-7.0	10.0	-3.0		<0.01
	Bandaging for genital edema		33	52	15	0	0.06
	Compression and support garments for genital edema	%	7	74	19	0	
		adjusted residual	-7.0	11.0	-4.0		<0.01
	Manual lymphatic drainage for genital edema	%	12	65	23	0	
		adjusted residual	-5.7	8.3	-2.7		<0.01
	Exercise prescription for genital edema patients	%	50	42	8	0	
adjusted residual		4.0	2.0	-6.0		0.03	
Awareness of surgical intervention for the management of genital edema	%	42	46	12	0	0.09	

Note. ^a N=25, ^b N=24, ^c N=26

Table 3 A difference in confidence in knowledge for the health care professionals without genital edema training

Topic	Item		Without genital edema training n=43				p
			not confident at all	somewhat confident	very confident	not applicable	
Genital edema knowledge	Anatomy of male pelvis and connected musculature ^a	%	59	39	2	0	
		adjusted residual	10.3	2.3	-12.7		<0.01
	Anatomy of female pelvis and connected musculature ^b	%	48	50	2	0	
		adjusted residual	6.0	7.0	-13.0		<0.01
	Common pathologies (including cancer types) and medical interventions leading to a risk of genital edema ^b	%	55	38	7	0	
		adjusted residual	9.0	2.0	-11.0		<0.01
Common surgical interventions leading to a known risk of genital edema ^b	%	62	31	7	0		
	adjusted residual	12.0	-1.0	-11.0		<0.01	
Socio-cultural issue	Patient and health professional factors that will impact on providing treatment for someone with genital edema ^b	%	60	38	2	0	
		adjusted residual	11.0	2.0	-13.0		<0.01
	Legal concerns in treating genital edema ^b	%	83	14	3	0	
		adjusted residual	21.0	-8.0	-13.0		<0.01
	Cultural and ethical concerns in treating genital edema ^b	%	81	17	2	0	
		adjusted residual	20.0	-7.0	-13.0		<0.01
Overcoming difficult conversations in relation to genital edema ^b	%	71	26	3	0		
	adjusted residual	16.0	-3.0	-13.0		<0.01	
Assessment & evaluation	Using self-report tools with genital edema patients ^c	%	92	8	0	0	
		adjusted residual	16.0	-16.0			<0.01
	Assessment documentation for genital edema ^d	%	90	10	0	0	
		adjusted residual	15.5	-15.5			<0.01
	Assessment and evaluation techniques for genital edema ^d	%	85	15	0	0	
		adjusted residual	13.5	-13.5			<0.01
Clinical reasoning for genital edema related treatment decisions ^d	%	82	18	0	0		
	adjusted residual	12.5	-12.5			<0.01	
treatment	Skin care and reducing infection risk with genital edema ^a	%	37	59	4	0	
		adjusted residual	1.3	10.3	-11.7		<0.01
	Self-massage/simple lymphatic drainage for genital edema ^a	%	59	39	2	0	
		adjusted residual	10.3	2.3	-12.7		<0.01
	Bandaging for genital edema ^a	%	73	24	3	0	
		adjusted residual	16.3	-3.7	-12.7		<0.01
	Compression and support garments for genital edema ^a	%	51	44	5	0	
		adjusted residual	7.3	4.3	-11.7		<0.01
	Manual lymphatic drainage for genital edema ^e	%	53	47	0	0	0.75
	Exercise prescription for genital edema patients ^a	%	83	17	0	0	
adjusted residual		13.5	-13.5			<0.01	
Awareness of surgical intervention for the management of genital edema ^a	%	83	15	2	0		
	adjusted residual	20.3	-7.7	-12.7		<0.01	

Note. ^a N=41, ^b N=42, ^c N=38, ^d N=39, ^e N=40

Table 4 A difference in top 1 educational need with and without genital edema training

Subcategory	With genital edema training n=27		Without genital edema training n=36	
	n	%	n	%
Anatomy and physiology	2	7	5	14
Pathology and causes	2	7	3	8
Psychological and legal	2	7	1	3
Gender-specific and paediatric	1	4	0	0
Learning and teaching method	1	4	3	8
Lobbying and raising awareness	1	4	4	11
Patient assessment	7	26	2	6
Outcome measure	5	19	2	6
Skin care and reducing infection risk	2	7	9	25
Compression	3	11	4	11
Self-management/other treatments	1	4	3	8

Note. Free-text answers for the most important educational needs on genital edema were classified into four categories as well as 21 subcategories, using the same approach as in a previous study examining the leading educational needs among health care professionals related to managing genital edema⁵⁾

Table 5 The format of education resources

Education resources	With genital edema training n=27		Without genital edema training n=43	
	n	%	n	%
e-learning package	21	78	23	53
Leaflet/booklets/folder of printed materials	23	85	31	72
Film/video from clinical experts	18	67	26	60
Mobile telephone app	10	37	8	19
Development of video prescription	18	67	29	67
Collection of case studies	20	74	28	65
Workshop	22	81	20	47
International professional forum/interest group	16	59	16	37
Regional/local peer support group	15	56	16	37
Special edition journals on genital edema	15	56	23	53
Collaborative events with urology speciality professionals	20	74	23	53
Collaborative events with pelvic health specialists	20	74	21	49

Note, Health care professionals could select multiple answers.

education on genital edema were more concerned about skin care and reducing infection risk.

It is not surprising that education on genital edema/lymphedema in Japan may be insufficient to meet the needs of health care professionals. In this study, only

26% of the health care professionals without genital edema training treated patients with genital edema. In a previous international study, 77% of respondents reported treating genital edema.⁵⁾ This suggests that professionals who had not received training in genital

edema largely did not treat patients with this condition. This may be related to cultural issues. In Japan, treatment of conditions involving genital organs is still considered a cultural taboo, and those who have not received training in caring for patients with genital edema may be hesitant to provide such treatment. Research in the UK¹⁵⁾ that was part of a broader global study on the education needs of health care professionals treating genital edema⁵⁾ found that some health care professionals were as reluctant as patients to mention genital edema. Health care professionals who have not received specific education regarding genital edema, which is not part of standard undergraduate nursing training in the UK¹⁴⁾ or Japan, might reasonably lack confidence in their knowledge about genital edema and whether they have the necessary skills to manage the condition appropriately. In the present study, 37%–92% of respondents said that they were not at all confident regarding each item, and more respondents did not feel confident at all, versus those who felt somewhat confident or very confident in 11 of the 19 items (common surgical interventions leading to a known risk of genital edema, legal concerns in treating genital edema, cultural and ethical concerns in treating genital edema, overcoming difficult conversations in relation to genital edema, using self-report tools with genital edema patients, assessment documentation for genital edema, assessment and evaluation techniques for genital edema, clinical reasoning for genital edema-related treatment decisions, bandaging for genital edema, exercise prescription for genital edema patients, and awareness of surgical intervention for the management of genital edema). For respondents who had received training in genital edema, the number of items in which they did not feel confident at all decreased to 4 of 19 topics, and 85% of the health care professionals with genital edema training reported treating patients with this condition. In other words, education on genital edema in Japan has contributed to the ability of health care professionals to provide treatment for genital edema, but gaps remain in education about this condition. However, even respondents who had received training in genital edema did not state that they felt very confident in any topic; thus, education on genital edema in Japan is insufficient. It is therefore important to

expand the range of knowledge among health care professionals, to empower them to actively engage in managing and treating patients with genital edema.

The present study identified items that were particularly lacking in education on genital edema in Japan. These items included legal concerns in treating genital edema, cultural and ethical concerns in treating genital edema, using self-report tools in patients with genital edema, and assessment documentation for genital edema, for which health care professionals specifically trained in genital edema stated that they were not at all confident (**Table 2**). Similar to the present study, respondents to a previous UK survey¹⁴⁾ said that they did not feel confident about items involving legal concerns, cultural and ethical concerns, and using self-report tools. Information about these topics should therefore be prioritized for inclusion in the training regarding genital edema provided in Japan. It is likely that currently available education in this field does not cover these items at all, and certainly not in any depth.

The most pressing educational needs identified by participants who had received specific education on genital edema were patient assessment and outcome measures. Overall, 85% of this group reported that they were actively treating patients with genital edema, and they would therefore be expected to assess this condition in clinical settings. However, these respondents were not at all confident in using self-report tools with genital edema patients, or assessment documentation for genital edema. This suggests a high need for improved education on assessment and evaluation methods for genital edema. Several possible assessment methods are available for genital edema. The Genital Lymphedema Score,¹⁶⁾ the Lymphoedema Genito-urinary Cancer Questionnaire,¹⁵⁾ Gynecologic Cancer Lymphedema Questionnaire,¹⁷⁾ and Self-report Lower-Extremity Lymphedema Screening Questionnaire¹⁸⁾ are all subjective assessment methods. None of these assessment tools was used at all in this study (**Table 1**), probably because none of these has been translated into Japanese. In the future, it will be necessary to develop an assessment document or tool in Japanese. A method to objectively evaluate genital edema is also needed to establish scientifically based care methods. In a previous case study of genital edema, only a pitting test was

conducted to evaluate the condition.¹⁹⁾ However, circumference measurement²⁰⁾ and ultrasonography methods,²¹⁾ which are used objectively for the extremities, may also be applicable to the genitals. Respondents' preferred format for training materials included leaflets, booklets or folders of printed materials, workshops, and e-learning packages. Individuals involved in developing training should therefore consider providing educational materials using these formats.

The leading educational need among participants who had not received specific training in genital edema was skin care and reducing infection risk. This item was identified by very few of those who had received specific training (7%). The difference between these groups suggests that the main focus on training in genital edema available in Japan is pathology and treatment of genital edema. Attending standard training could therefore benefit health care professionals who have not received any specific education on genital edema. This might improve their confidence in providing common treatments currently used in clinical settings. If health care professionals develop an interest in genital edema via education on skin care, they may be more likely to treat genital edema. In the future, it would be helpful to create leaflets, booklets or folders, video prescriptions, and collections of case studies that can be used to review skin care methods and support patient education because these formats preferred by survey respondents who identified this training need.

This study revealed specific areas of need among health care professionals regarding genital edema care, based on whether they had previously received education related to genital edema. First, it is important that health care professionals who have not received education specific to genital edema receive training in the pathology and treatment of this condition; these topics comprise the existing education on genital edema in Japan. The main type of educational format currently available involves lectures; however, material such as leaflets, video prescriptions, and collections of case reports would make it easier for health care professionals to acquire necessary knowledge. For health care professionals who have treated patients with genital edema after receiving the above basic education, additional training in genital edema is needed. Addition-

al education should include knowledge on socio-cultural issues, assessment, and outcome measures. For this, in addition to leaflets, educational materials that permit health care professionals to study at any time or in any location such as e-learning and to study independently such as workshops should be used so that these professionals can improve their practice in genital edema.

Limitations

This study has some limitations, the most important of which was selection bias. The study participants were all either members or known to members of a society focused on lymphedema. It is therefore likely that all participants had an interest in the treatment of lymphedema and were also likely to be interested in genital edema. However, the selection method was considered appropriate because the aim was to clarify the types of education on genital edema that should be provided to health care professionals who know about and understand lymphedema but who perhaps know less about rare condition, such as genital edema.

Conclusion

The present survey showed that even professionals who have received training on genital edema are not sufficiently prepared in Japan to meet the needs of health care professionals treating patients with this condition. Topics that are particularly lacking in education on genital edema in Japan were found to be knowledge about socio-cultural issues, assessment, and outcome measures; health care professionals trained in genital edema stated that they were not at all confident and that they had educational needs regarding these topics. Educational program development is needed to fill these knowledge gaps.

Acknowledgments

The authors are very grateful to the health professionals who took part in this study. We also thank Analisa Avila, MPH, ELS, and Melissa Leffler, MBA, of Edanz (<https://jp.edanz.com/ac>) for editing a draft of this manuscript. This work was supported by Christine Moffatt, a member of the International Lymphedema Framework Governing Board of Trustees.

Disclosure

No competing financial interest exist.

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生殖器浮腫を管理する医療従事者の教育的ニーズ－日本における調査結果－

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要 旨

目的：本研究の目的は、日本における生殖器浮腫/リンパ浮腫患者を管理している医療従事者の教育的ニーズを明らかにすることである。

方法：研究デザインは横断研究で、対象者は日本でリンパ浮腫患者を管理している医療従事者とした。対象者は、Web アンケート上で、生殖器浮腫に対する経験、知識、管理する上での自信の程度、生殖器浮腫教育に対するニーズの項目に回答した。生殖器浮腫に特化した教育経験の有無で2つのグループに分け、対象者の基本属性、経験、知識、自信の程度、生殖器浮腫教育に対するニーズの実態を記述した。

結果：70名がアンケートに回答し、そのうち、生殖器浮腫に特化した教育を受けた経験のある対象者は39%、教育経験がない対象者は61%であった。教育経験がある医療従事者が「全く自信がない」と回答した項目は、生殖器の浮腫治療における法的な懸念、文化・倫理的な懸念、自記式アセスメントツールの使用、アセスメントであり、教育的ニーズは、患者のアセスメントと評価であった。教育経験がない医療従事者は、「ある程度自信がある」と回答した項目が、スキンケアや生殖器浮腫に伴う感染リスクを減少させるであり、教育的ニーズも同様にスキンケアであった。

結論：日本では生殖器浮腫に特化した教育を受けた経験があってもその内容は不十分であり、今後生殖器浮腫ケアに従事する医療従事者のニーズを満たす教育プログラムの開発が求められる。

キーワード：生殖器浮腫、リンパ浮腫、専門教育