

World Journal of *Clinical Cases*

World J Clin Cases 2022 November 16; 10(32): 11665-12065



OPINION REVIEW

- 11665** Combined use of lactoferrin and vitamin D as a preventive and therapeutic supplement for SARS-CoV-2 infection: Current evidence
Cipriano M, Ruberti E, Tovani-Palone MR

REVIEW

- 11671** Role of adherent invasive *Escherichia coli* in pathogenesis of inflammatory bowel disease
Zheng L, Duan SL, Dai YC, Wu SC
- 11690** Emerging potential of ubiquitin-specific proteases and ubiquitin-specific proteases inhibitors in breast cancer treatment
Huang ML, Shen GT, Li NL

MINIREVIEWS

- 11702** Overlap of diabetic ketoacidosis and hyperosmolar hyperglycemic state
Hassan EM, Mushtaq H, Mahmoud EE, Chhibber S, Saleem S, Issa A, Nitesh J, Jama AB, Khedr A, Boike S, Mir M, Attallah N, Surani S, Khan SA

ORIGINAL ARTICLE**Case Control Study**

- 11712** Comparing the efficacy of different dexamethasone regimens for maintenance treatment of multiple myeloma in standard-risk patients non-eligible for transplantation
Hu SL, Liu M, Zhang JY

Retrospective Cohort Study

- 11726** Development and validation of novel nomograms to predict survival of patients with tongue squamous cell carcinoma
Luo XY, Zhang YM, Zhu RQ, Yang SS, Zhou LF, Zhu HY

Retrospective Study

- 11743** Non-invasive model for predicting esophageal varices based on liver and spleen volume
Yang LB, Zhao G, Tantai XX, Xiao CL, Qin SW, Dong L, Chang DY, Jia Y, Li H

Clinical Trials Study

- 11753** Clinical efficacy of electromagnetic field therapy combined with traditional Chinese pain-reducing paste in myofascial pain syndrome
Xiao J, Cao BY, Xie Z, Ji YX, Zhao XL, Yang HJ, Zhuang W, Sun HH, Liang WM

- 11766** Endothelial injury and inflammation in patients with hyperuricemic nephropathy at chronic kidney disease stages 1-2 and 3-4

Xu L, Lu LL, Wang YT, Zhou JB, Wang CX, Xin JD, Gao JD

Observational Study

- 11775** Quality of life and symptom distress after cytoreductive surgery and hyperthermic intraperitoneal chemotherapy

Wang YF, Wang TY, Liao TT, Lin MH, Huang TH, Hsieh MC, Chen VCH, Lee LW, Huang WS, Chen CY

- 11789** Development and validation of a risk assessment model for prediabetes in China national diabetes survey

Yu LP, Dong F, Li YZ, Yang WY, Wu SN, Shan ZY, Teng WP, Zhang B

Case Control Study

- 11804** T-cell immunoglobulin mucin molecule-3, transformation growth factor β , and chemokine-12 and the prognostic status of diffuse large B-cell lymphoma

Wu H, Sun HC, Ouyang GF

META-ANALYSIS

- 11812** Prostate artery embolization on lower urinary tract symptoms related to benign prostatic hyperplasia: A systematic review and meta-analysis

Wang XY, Chai YM, Huang WH, Zhang Y

CASE REPORT

- 11827** Paraneoplastic neurological syndrome caused by cystitis glandularis: A case report and literature review

Zhao DH, Li QJ

- 11835** Neck pain and absence of cranial nerve symptom are clues of cervical myelopathy mimicking stroke: Two case reports

Zhou LL, Zhu SG, Fang Y, Huang SS, Huang JF, Hu ZD, Chen JY, Zhang X, Wang JY

- 11845** Nine-year survival of a 60-year-old woman with locally advanced pancreatic cancer under repeated open approach radiofrequency ablation: A case report

Zhang JY, Ding JM, Zhou Y, Jing X

- 11853** Laparoscopic treatment of inflammatory myofibroblastic tumor in liver: A case report

Li YY, Zang JF, Zhang C

- 11861** Survival of a patient who received extracorporeal membrane oxygenation due to postoperative myocardial infarction: A case report

Wang QQ, Jiang Y, Zhu JG, Zhang LW, Tong HJ, Shen P

- 11869** Triple hit to the kidney-dual pathological crescentic glomerulonephritis and diffuse proliferative immune complex-mediated glomerulonephritis: A case report

Ibrahim D, Brodsky SV, Satoskar AA, Biederman L, Maroz N

- 11877** Successful transcatheter arterial embolization treatment for chest wall haematoma following permanent pacemaker implantation: A case report
Zheng J, Tu XM, Gao ZY
- 11882** Brachiocephalic to left brachial vein thrombotic vasculitis accompanying mediastinal pancreatic fistula: A case report
Kokubo R, Yunaiyama D, Tajima Y, Kugai N, Okubo M, Saito K, Tsuchiya T, Itoi T
- 11889** Long survival after immunotherapy plus paclitaxel in advanced intrahepatic cholangiocarcinoma: A case report and review of literature
He MY, Yan FF, Cen KL, Shen P
- 11898** Successful treatment of pulmonary hypertension in a neonate with bronchopulmonary dysplasia: A case report and literature review
Li J, Zhao J, Yang XY, Shi J, Liu HT
- 11908** Idiopathic tenosynovitis of the wrist with multiple rice bodies: A case report and review of literature
Tian Y, Zhou HB, Yi K, Wang KJ
- 11921** Endoscopic resection of bronchial mucoepidermoid carcinoma in a young adult man: A case report and review of literature
Ding YM, Wang Q
- 11929** Blue rubber bleb nevus syndrome complicated with disseminated intravascular coagulation and intestinal obstruction: A case report
Zhai JH, Li SX, Jin G, Zhang YY, Zhong WL, Chai YF, Wang BM
- 11936** Management of symptomatic cervical facet cyst with cervical interlaminar epidural block: A case report
Hwang SM, Lee MK, Kim S
- 11942** Primary squamous cell carcinoma with sarcomatoid differentiation of the kidney associated with ureteral stone obstruction: A case report
Liu XH, Zou QM, Cao JD, Wang ZC
- 11949** Successful live birth following hysteroscopic adhesiolysis under laparoscopic observation for Asherman's syndrome: A case report
Kakinuma T, Kakinuma K, Matsuda Y, Ohwada M, Yanagida K
- 11955** What is responsible for acute myocardial infarction in combination with aplastic anemia? A case report and literature review
Zhao YN, Chen WW, Yan XY, Liu K, Liu GH, Yang P
- 11967** Repeated ventricular bigeminy by trigeminocardiac reflex despite atropine administration during superficial upper lip surgery: A case report
Cho SY, Jang BH, Jeon HJ, Kim DJ
- 11974** Testis and epididymis-unusual sites of metastatic gastric cancer: A case report and review of the literature
Ji JJ, Guan FJ, Yao Y, Sun LJ, Zhang GM

- 11980** t(4;11) translocation in hyperdiploid *de novo* adult acute myeloid leukemia: A case report
Zhang MY, Zhao Y, Zhang JH
- 11987** Sun-burn induced upper limb lymphedema 11 years following breast cancer surgery: A case report
Li M, Guo J, Zhao R, Gao JN, Li M, Wang LY
- 11993** Minimal change disease caused by polycythemia vera: A case report
Xu L, Lu LL, Gao JD
- 12000** Vitreous amyloidosis caused by a Lys55Asn variant in transthyretin: A case report
Tan Y, Tao Y, Sheng YJ, Zhang CM
- 12007** Endoscopic nasal surgery for mucocele and pyogenic mucocele of turbinate: Three case reports
Sun SJ, Chen AP, Wan YZ, Ji HZ
- 12015** Transcatheter arterial embolization for traumatic injury to the pharyngeal branch of the ascending pharyngeal artery: Two case reports
Yunaiyama D, Takara Y, Kobayashi T, Muraki M, Tanaka T, Okubo M, Saguchi T, Nakai M, Saito K, Tsukahara K, Ishii Y, Homma H
- 12022** Retroperitoneal leiomyoma located in the broad ligament: A case report
Zhang XS, Lin SZ, Liu YJ, Zhou L, Chen QD, Wang WQ, Li JY
- 12028** Primary testicular neuroendocrine tumor with liver lymph node metastasis: A case report and review of the literature
Xiao T, Luo LH, Guo LF, Wang LQ, Feng L
- 12036** Endodontic treatment of the maxillary first molar with palatal canal variations: A case report and review of literature
Chen K, Ran X, Wang Y
- 12045** Langerhans cell histiocytosis involving only the thymus in an adult: A case report
Li YF, Han SH, Qie P, Yin QF, Wang HE

LETTER TO THE EDITOR

- 12052** Heart failure with preserved ejection fraction: A distinct heart failure phenotype?
Triposkiadis F, Giamouzis G, Skoularigis J, Xanthopoulos A
- 12056** Insight into appropriate medication prescribing for elderly in the COVID-19 era
Omar AS, Kaddoura R
- 12059** Commentary on "Gallstone associated celiac trunk thromboembolisms complicated with splenic infarction: A case report"
Tokur O, Aydın S, Kantarci M
- 12062** Omicron targets upper airways in pediatrics, elderly and unvaccinated population
Nori W, Ghani Zghair MA

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Camelia Cristina Diaconu, FACC, FACP, FESC, MHSc, PhD, Associate Professor, Department of Internal Medicine, "Carol Davila" University of Medicine and Pharmacy, Clinical Emergency Hospital of Bucharest, Bucharest 014461, Romania. drcameliadiaconu@gmail.com

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases (WJCC, World J Clin Cases)* is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The *WJCC* is now abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, Current Contents®/Clinical Medicine, PubMed, PubMed Central, Scopus, Reference Citation Analysis, China National Knowledge Infrastructure, China Science and Technology Journal Database, and Superstar Journals Database. The 2022 Edition of Journal Citation Reports® cites the 2021 impact factor (IF) for *WJCC* as 1.534; IF without journal self cites: 1.491; 5-year IF: 1.599; Journal Citation Indicator: 0.28; Ranking: 135 among 172 journals in medicine, general and internal; and Quartile category: Q4. The *WJCC*'s CiteScore for 2021 is 1.2 and Scopus CiteScore rank 2021: General Medicine is 443/826.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: *Hua-Ge Yu*; Production Department Director: *Xu Guo*; Editorial Office Director: *Jin-Lei Wang*.

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Thrice Monthly

EDITORS-IN-CHIEF

Bao-Gan Peng, Jerzy Tadeusz Chudek, George Kontogeorgos, Maurizio Serati, Ja Hyeon Ku

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

PUBLICATION DATE

November 16, 2022

COPYRIGHT

© 2022 Baishideng Publishing Group Inc

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>

Sun-burn induced upper limb lymphedema 11 years following breast cancer surgery: A case report

Min Li, Jun Guo, Rong Zhao, Jin-Nan Gao, Ming Li, Lin-Ying Wang

Specialty type: Medicine, research and experimental

Provenance and peer review:

Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0

Grade B (Very good): 0

Grade C (Good): C

Grade D (Fair): D

Grade E (Poor): 0

P-Reviewer: Vinh-Hung V, Martinique; Yap RVC, Philippines

Received: July 20, 2022

Peer-review started: July 20, 2022

First decision: August 22, 2022

Revised: September 2, 2022

Accepted: October 11, 2022

Article in press: October 11, 2022

Published online: November 16, 2022



Min Li, Jun Guo, Rong Zhao, Jin-Nan Gao, Lin-Ying Wang, Department of Breast Surgery, Shanxi Bethune Hospital, Shanxi Academy of Medical Science, Taiyuan 030032, Shanxi Province, China

Ming Li, Department of Cancer Research Institute, University of South Australia, Adelaide 5000, Australia

Corresponding author: Lin-Ying Wang, MNurs, RN, Chief Nurse, Department of Breast Surgery, Shanxi Bethune Hospital, Shanxi Academy of Medical Science, No. 99 Longcheng Avenue, Taiyuan 030032, Shanxi Province, China. 394398876@qq.com

Abstract

BACKGROUND

Upper arm lymphedema is a common complication one year after breast cancer surgery, which profoundly impacts patients' quality of life.

CASE SUMMARY

We reported a case of lymphedema induced by prolonged sun exposure 11 years after breast cancer surgery.

CONCLUSION

Breast screening, patient education and follow-up after hospital discharge could help to prevent upper-arm lymphedema.

Key Words: Sun-burn; Breast cancer lymphedema; Breast neoplasms; Case report

©The Author(s) 2022. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: Upper arm lymphedema is a common complication one year after breast cancer surgery, which profoundly impacts patients' quality of life. We reported a case of lymphedema induced by prolonged sun exposure 11 years after breast cancer surgery.

Citation: Li M, Guo J, Zhao R, Gao JN, Li M, Wang LY. Sun-burn induced upper limb lymphedema 11 years following breast cancer surgery: A case report. *World J Clin Cases* 2022; 10(32): 11987-11992

URL: <https://www.wjgnet.com/2307-8960/full/v10/i32/11987.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v10.i32.11987>

INTRODUCTION

Breast cancer is one of the most common malignancies, accounting for 15% of female tumors[1]. Since 2000, the incidence in China has been increasing with a 1% annual increment[2]. Although survival has been significantly improved due to advances in treatment, the quality of life was affected, sometimes due to lymphedema on the affected side[3]. Lymphedema is the main complication after cancer treatment, affecting 12%–28% of the patients after axillary dissection and 3.5%–7.5% after sentinel node biopsy[4]. Patients have upper limb lymph accumulation due to lymphatic vessel rupture and deformation. Lymphedema causes shoulder joint dysfunction and affects patients' mental well-being[5, 6]. Research shows that approximately 1/5th of patients in China develop secondary upper limb lymphedema within one year of having breast cancer surgery[7]. Although various approaches have been used, lymphedema remains the most common chronic complication of breast cancer treatment, with only palliative therapies available[8]. Therefore, prevention against modifiable risk factors has become critical. Risk factors for lymphedema include overweight/obesity, high blood pressure, axillary lymph node dissection, chemotherapy, local radiotherapy[9], limb overload, trauma and infection[10].

Postoperative infection, delayed healing and improper nursing can hinder lymphatic vessel reconstruction and the establishment of collateral circulation[11]. When using heat therapy, individuals should use common sense and proceed with caution. If there is swelling in the at-risk limb or increased swelling in the lymphedematous limb, stop using heat, such as a hot tub or sauna. Recently, we cured a patient with severe limb lymphedema following solar dermatitis with massive infection, 11 years after right breast cancer surgery. We hereby report this case with the patient's informed consent.

CASE PRESENTATION

Chief complaints

She complained of progressive swelling and heaviness of the right upper limb after a 4-d (approximately 15 h) of outdoor fieldwork under the direct sun. At that time, the patient wore a short-sleeved shirt with no covering on both upper limbs. She experienced chest wall burning pain on the seventh day and came to seek help on the ninth day. On September 9, 2021, she was admitted with forearm erythema, desquamation, and a body temperature of 39.4 °C. Prior to this, the patient's upper limbs were normal, and his right upper limb was always protected, with no mosquito bites, infections or injuries. When the patient was exposed to the hot sun nine days ago, she mistakenly believed that she had been in surgery for more than 10 years and did not need to protect his upper limb, which resulted in swelling and pain in his right upper limb and sunburn on his left upper limb.

History of present illness

Figure 1 depicts the affected limb on admission. According to the group standard of the Chinese Nursing Society for lymphedema evaluation (T/CNAS 05-2020), combined with the symptoms reported voluntarily by patients. Following admission, we performed a Breast Cancer & Lymphedema Symptom Experience Index evaluation and measured the circumference. The difference in the circumference between the affected and healthy sides was > 3 cm and diagnosed as severely sunburned lymphedema of the right upper limb[12]. Supplementary Table 1 shows the circumference measurements of both arms.

History of past illness

The right-handed female patient, aged 61, underwent modified radical mastectomy for the right breast cancer (with chemotherapy and radiotherapy of the axilla and chest) in our department 11 years ago. She continued a regular follow-up (The patient was followed up every three months for two years after the operation, every six months for the next 3-5 years and once a year after five years of operation). After breast surgery, there was no complaint of right upper limb discomfort; therefore, arm circumference measurement was not performed regularly.

Physical examination

Comparison of circumferences of left and right upper limbs.



DOI: 10.12998/wjcc.v10.i32.11987 Copyright ©The Author(s) 2022.

Figure 1 Patients affected right limb on admission (on September 9, 2021). (Supplementary Table 1).

Laboratory examinations

She was also diagnosed with a chest wall infection on the affected side after blood tests.

FINAL DIAGNOSIS

Breast cancer lymphedema.

TREATMENT

Based on bacterial culture results, an eight days 400 U penicillin (b.i.d) therapy was initiated along with a standard of daily dressing and close monitoring of the blood circulation of the infected skin. The patient was advised to wear loose dresses to avoid friction. On the ninth day after the infection was cured, a physiotherapist started a lymphatic drainage massage daily for 40 min. The centripetal massage was also performed twice daily for 30 min with a sleeve pressure of < 40 mmHg. After the physiotherapy, the patient was instructed to wear elastic sleeves. The circumference measurements were taken daily at 5:00 pm to monitor the recovery (Supplementary Table 2). On the 15th day of admission, the patient was discharged after a comprehensive examination of fully recovered limb and function. Figure 2 shows the limbs on the discharge day. We followed the patient telephonically at two weeks, one month, three months, and six months after discharge, and the patient reported no change in any function or circumference of the right limb. Throughout her hospital stay and follow-up calls, she was encouraged to discuss her negative feelings with the care team and to be actively involved in making decisions about treatment and monitoring and prevention of lymphedema.

OUTCOME AND FOLLOW-UP

The patient got a comprehensive recovery, and there was no complaint of discomfort in the follow-up visit.

DISCUSSION

One of the most common post-surgical complications among breast cancer survivors is lymphedema, which can evolve into irreversible interstitial fibrosis[13]. Therefore, the screening and monitoring of lymphedema are important. The most common clinical manifestations of lymphedema include infection, swelling, pain, discomfort, and reduced joint dexterity[14]. American national lymphedema network declaration indicates that patients should be advised to avoid air traveling, maceration, skin puncture (blood collection), compression (blood pressure measurement), skin infection and extreme temperatures of the affected limb[15]. The patient, in this case, had lymphedema due to high temperature. The evaluation is primarily based on the symptoms of patients. In the early stages, patients typically present with a subtle onset of arm or hand swelling, accompanied by a sensation of heaviness



DOI: 10.12998/wjcc.v10.i32.11987 Copyright ©The Author(s) 2022.

Figure 2 Comparison of the affected limb on discharge Supplement. (Supplementary Table 2).

in the limb. Swelling in the middle and late stages cannot be relieved by raising or applying external pressure to the affected limb. The scope of involvement is broad and has an orange-peel appearance [16]. The Chinese Nursing Society's Group standard for prevention and care of lymphedema after breast cancer surgery (T/CNAS 05-2020) states that all breast cancer patients should be screened for lymphedema risk before being discharged from the hospital after surgery.

Lymphedema risk scales should be used following a breast cancer operation to identify high-risk patients. Furthermore, for high-risk patients, compliance with preventive behaviors should be monitored at least every six months for the first two years after the operation, and whether lymphedema developed or not should be evaluated. All patients did not have typical presentations. People who are at high risk should accept the objective physical examination, which may include limb measurements, magnetic resonance imaging[17], lymphoscintigraphy[18], indocyanine green[19], and bioimpedance spectroscopy. In a retrospective study of over 165000 hospital admissions for lymphedema, the majority of cases (92%) were associated with cellulitis in the United States between 2012 and 2017[20,21]. Research proves that prolonged exposure of affected limbs to ultraviolet radiation stimulates inflammatory mediators to dilate and infiltrate the blood vessel and damages the skin barrier function, leading to local oozing and even infection. This might be due to high protein deposition in the interstitial tissues that accelerates the growth and reproduction of bacteria[22,23].

The case indicates that patients should be informed to avoid sun exposure shortly or long after breast cancer surgery, especially in regions where people culturally like beaches and outdoor activities. Patients' knowledge, attitude and behavior play a key role in preventing lymphedema in breast cancer patients[24]. The medical care team should disseminate evidence-based knowledge of lymphedema, guide and train patients to avoid risks, and follow up and closely monitor their practice following hospital discharge.

Baseline upper limb circumference is an objective measurement used to monitor the prevention, occurrence and outcome of lymphedema in breast cancer patients. In this case, overall circumference changes before and after the occurrence of lymphedema and after the treatment could not be evaluated, suggesting the need to record complete upper limb measurements for the rehabilitation of breast cancer patients.

Currently, there are no internationally recognized effective treatments for lymphedema[24]. The conservative treatment of established lymphedema consists of a multimodality regimen that includes general self-care measures (exercise, skin care), compression therapy (compression bandaging, compression garments, intermittent pneumatic compression), and physiotherapy (*e.g.*, simple lymphatic drainage, manual lymphatic drainage, complete decongestive therapy)[25,26]. In China, upper arm lymphedema could be significantly prevented if breast cancer screening is promoted in the community, based on the success of western countries for early detection and less radical surgical treatment[27].

CONCLUSION

We reported a case of lymphedema caused by prolonged sun exposure 11 years after breast cancer surgery and radiotherapy. Breast screening, patient education and follow-up after hospital discharge could help to prevent upper-arm lymphedema.

FOOTNOTES

Author contributions: Li M participated in the hospital treatment, collected data, and drafted the manuscript; Gao JN supervised the data collection; Li M supervised the data analysis and revised the manuscript; Wang LY initiated the case study and revised the manuscript; And all the authors approved the manuscript.

Informed consent statement: The patient has signed the informed consent form and uploaded it before treatment, and the study has passed the review of our hospital's ethics committee.

Conflict-of-interest statement: All the authors report no relevant conflicts of interest for this article.

CARE Checklist (2016) statement: The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

Country/Territory of origin: China

ORCID number: Lin-Ying Wang 0000-0002-1410-3065.

S-Editor: Liu XF

L-Editor: A

P-Editor: Liu XF

REFERENCES

- 1 **Chen W**, Zheng R, Baade PD, Zhang S, Zeng H, Bray F, Jemal A, Yu XQ, He J. Cancer statistics in China, 2015. *CA Cancer J Clin* 2016; **66**: 115-132 [PMID: 26808342 DOI: 10.3322/caac.21338]
- 2 **Li J**, Fan JH, Pang Y. A Nationwide Hospital-based Multicenter Clinical Epidemiological Investigation for Female Primary Breast Cancer in China. *Zhongguo Zhongliu* 2013; **4**: 254-259 [DOI: 10.3969/j.issn.1006-7256.2017.14.018]
- 3 **Allemani C**, Weir HK, Carreira H, Harewood R, Spika D, Wang XS, Bannon F, Ahn JV, Johnson CJ, Bonaventure A, Marcos-Gragera R, Stiller C, Azevedo e Silva G, Chen WQ, Ogunbiyi OJ, Rachet B, Soeberg MJ, You H, Matsuda T, Bielska-Lasota M, Storm H, Tucker TC, Coleman MP; CONCORD Working Group. Global surveillance of cancer survival 1995-2009: analysis of individual data for 25,676,887 patients from 279 population-based registries in 67 countries (CONCORD-2). *Lancet* 2015; **385**: 977-1010 [PMID: 25467588 DOI: 10.1016/S0140-6736(14)62038-9]
- 4 **DiSipio T**, Rye S, Newman B, Hayes S. Incidence of unilateral arm lymphoedema after breast cancer: a systematic review and meta-analysis. *Lancet Oncol* 2013; **14**: 500-515 [PMID: 23540561 DOI: 10.1016/S1470-2045(13)70076-7]
- 5 **Hayes SC**, Rye S, Battistutta D, DiSipio T, Newman B. Upper-body morbidity following breast cancer treatment is common, may persist longer-term and adversely influences quality of life. *Health Qual Life Outcomes* 2010; **8**: 92 [PMID: 20804558 DOI: 10.1186/1477-7525-8-92]
- 6 **Cal A**, Bahar Z. Women's Barriers to Prevention of Lymphedema After Breast Surgery and Home Care Needs: A Qualitative Study. *Cancer Nurs* 2016; **39**: E17-E25 [PMID: 26641643 DOI: 10.1097/NCC.0000000000000326]
- 7 **Wang Y**, Jia L, Zhu S. Clinical observation on the treatment of upper limb lymphedema associated with breast cancer with breast pulse tongluo lotion. *Zhongri Youhao Yiyuan Xuebao* 2014; **28**: 171-172 [DOI: 10.3969/j.issn.1001-0025.2014.03.012]
- 8 **Michelotti A**, Invernizzi M, Lopez G, Lorenzini D, Nesa F, De Sire A, Fusco N. Tackling the diversity of breast cancer related lymphedema: Perspectives on diagnosis, risk assessment, and clinical management. *Breast* 2019; **44**: 15-23 [PMID: 30580170 DOI: 10.1016/j.breast.2018.12.009]
- 9 **Soran A**, Wu WC, Dirican A, Johnson R, Andacoglu O, Wilson J. Estimating the probability of lymphedema after breast cancer surgery. *Am J Clin Oncol* 2011; **34**: 506-510 [PMID: 21127413 DOI: 10.1097/COC.0b013e3181f47955]
- 10 **Zhang X**, Brown JC, Paskett ED, Zemel BS, Cheville AL, Schmitz KH. Changes in arm tissue composition with slowly progressive weight-lifting among women with breast cancer-related lymphedema. *Breast Cancer Res Treat* 2017; **164**: 79-88 [PMID: 28391397 DOI: 10.1007/s10549-017-4221-9]
- 11 **Fu MR**, Axelrod D, Cleland CM, Qiu Z, Guth AA, Kleinman R, Scagliola J, Haber J. Symptom report in detecting breast cancer-related lymphedema. *Breast Cancer (Dove Med Press)* 2015; **7**: 345-352 [PMID: 26527899 DOI: 10.2147/BCTT.S87854]
- 12 **Professional Committee of Breast Cancer of China Anti-cancer Association**. Guidelines and Specifications for Diagnosis and Treatment of Breast Cancer of China Anti-Cancer Association (2015 Edition). *Zhongguo Zhongliu* 2015; **25**: 692-754 [DOI: 10.3969/j.issn.1007-3969.2015.09.010]
- 13 **Bryant JR**, Hajjar RT, Lumley C, Chaiyasate K. Clinical Inquiry-In women who have undergone breast cancer surgery, including lymph node removal, do blood pressure measurements taken in the ipsilateral arm increase the risk of lymphedema? *J Okla State Med Assoc* 2016; **109**: 589-591 [PMID: 29292975]

- 14 **Barlow S**, Dixey R, Todd J, Taylor V, Carney S, Newell R. 'Abandoned by medicine'? *Prim Health Care Res Dev* 2014; **15**: 452-463 [PMID: [25146257](#) DOI: [10.1017/S1463423613000406](#)]
- 15 **Position Statement of the National Lymphedema Network**. Lymphedema risk reduction practices. [cited 10 June 2022]. Available from: <http://www.lymphnet.org/pdfDocs/nlnriskreductionpdf.2012>
- 16 **Damstra RJ**, Halk AB; Dutch Working Group on Lymphedema. The Dutch lymphedema guidelines based on the International Classification of Functioning, Disability, and Health and the chronic care model. *J Vasc Surg Venous Lymphat Disord* 2017; **5**: 756-765 [PMID: [28818234](#) DOI: [10.1016/j.jvsv.2017.04.012](#)]
- 17 **Duewell S**, Hagspiel KD, Zuber J, von Schulthess GK, Bollinger A, Fuchs WA. Swollen lower extremity: role of MR imaging. *Radiology* 1992; **184**: 227-231 [PMID: [1609085](#) DOI: [10.1148/radiology.184.1.1609085](#)]
- 18 **Mihara M**, Hara H, Araki J, Kikuchi K, Narushima M, Yamamoto T, Iida T, Yoshimatsu H, Murai N, Mitsui K, Okitsu T, Koshima I. Indocyanine green (ICG) lymphography is superior to lymphoscintigraphy for diagnostic imaging of early lymphedema of the upper limbs. *PLoS One* 2012; **7**: e38182 [PMID: [22675520](#) DOI: [10.1371/journal.pone.0038182](#)]
- 19 **Qin ES**, Bowen MJ, Chen WF. Diagnostic accuracy of bioimpedance spectroscopy in patients with lymphedema: A retrospective cohort analysis. *J Plast Reconstr Aesthet Surg* 2018; **71**: 1041-1050 [PMID: [29650264](#) DOI: [10.1016/j.bjps.2018.02.012](#)]
- 20 **Lopez M**, Roberson ML, Strassle PD, Ogunleye A. Epidemiology of Lymphedema-related admissions in the United States: 2012-2017. *Surg Oncol* 2020; **35**: 249-253 [PMID: [32932222](#) DOI: [10.1016/j.suronc.2020.09.005](#)]
- 21 **Boettler MA**, Kaffenberger BH, Chung CG. Cellulitis: A Review of Current Practice Guidelines and Differentiation from Pseudocellulitis. *Am J Clin Dermatol* 2022; **23**: 153-165 [PMID: [34902109](#) DOI: [10.1007/s40257-021-00659-8](#)]
- 22 **Snyder M**, Turrentine JE, Cruz PD Jr. Photocontact Dermatitis and Its Clinical Mimics: an Overview for the Allergist. *Clin Rev Allergy Immunol* 2019; **56**: 32-40 [PMID: [29951786](#) DOI: [10.1007/s12016-018-8696-x](#)]
- 23 **Chachaj A**, Małyszczak K, Pyszel K, Lukas J, Tarkowski R, Pudełko M, Andrzejak R, Szuba A. Physical and psychological impairments of women with upper limb lymphedema following breast cancer treatment. *Psychooncology* 2010; **19**: 299-305 [PMID: [19399782](#) DOI: [10.1002/pon.1573](#)]
- 24 **Cormier JN**, Rourke L, Crosby M, Chang D, Armer J. The surgical treatment of lymphedema: a systematic review of the contemporary literature (2004-2010). *Ann Surg Oncol* 2012; **19**: 642-651 [PMID: [21863361](#) DOI: [10.1245/s10434-011-2017-4](#)]
- 25 **Executive Committee of the International Society of Lymphology**. The diagnosis and treatment of peripheral lymphedema: 2020 Consensus Document of the International Society of Lymphology. *Lymphology* 2020; **53**: 3-19 [PMID: [32521126](#)]
- 26 **McLaughlin SA**, DeSnyder SM, Klimberg S, Alatraste M, Boccardo F, Smith ML, Staley AC, Thiruchelvam PTR, Hutchison NA, Mendez J, MacNeill F, Vicini F, Rockson SG, Feldman SM. Considerations for Clinicians in the Diagnosis, Prevention, and Treatment of Breast Cancer-Related Lymphedema, Recommendations from an Expert Panel: Part 2: Preventive and Therapeutic Options. *Ann Surg Oncol* 2017; **24**: 2827-2835 [PMID: [28766218](#) DOI: [10.1245/s10434-017-5964-6](#)]
- 27 **Hua-Ping H**, Jian-Rong Z, Zeng Q. Risk Factors Associated with Lymphedema among Postmenopausal Breast Cancer Survivors after Radical Mastectomy and Axillary Dissection in China. *Breast Care (Basel)* 2012; **7**: 461-464 [PMID: [24715827](#) DOI: [10.1159/000345459](#)]



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA
Telephone: +1-925-3991568
E-mail: bpgoffice@wjgnet.com
Help Desk: <https://www.f6publishing.com/helpdesk>
<https://www.wjgnet.com>

