

World Journal of *Clinical Cases*

World J Clin Cases 2023 February 6; 11(4): 719-978



Contents

Thrice Monthly Volume 11 Number 4 February 6, 2023

MINIREVIEWS

- 719 Development and refinement of diagnostic and therapeutic strategies for managing patients with cardiogenic stroke: An arduous journey
Fan ZX, Liu RX, Liu GZ
- 725 Portal vein aneurysm-etiology, multimodal imaging and current management
Kurtcehajic A, Zerem E, Alibegovic E, Kunosic S, Hujdurovic A, Fejzic JA

ORIGINAL ARTICLE

Clinical and Translational Research

- 738 CD93 serves as a potential biomarker of gastric cancer and correlates with the tumor microenvironment
Li Z, Zhang XJ, Sun CY, Fei H, Li ZF, Zhao DB

Retrospective Study

- 756 Chest computed tomography findings of the Omicron variants of SARS-CoV-2 with different cycle threshold values
Ying WF, Chen Q, Jiang ZK, Hao DG, Zhang Y, Han Q
- 764 Major depressive disorders in patients with inflammatory bowel disease and rheumatoid arthritis
Haider MB, Basida B, Kaur J
- 780 Selective laser trabeculoplasty as adjunctive treatment for open-angle glaucoma *vs* following incisional glaucoma surgery in Chinese eyes
Zhu J, Guo J
- 788 Efficacy of transvaginal ultrasound-guided local injections of absolute ethanol for ectopic pregnancies with intrauterine implantation sites
Kakinuma T, Kakinuma K, Matsuda Y, Yanagida K, Ohwada M, Kaijima H

Clinical Trials Study

- 797 Efficacy of incremental loads of cow's milk as a treatment for lactose malabsorption in Japan
Hasegawa M, Okada K, Nagata S, Sugihara S

Observational Study

- 809 Transdiagnostic considerations of mental health for the post-COVID era: Lessons from the first surge of the pandemic
Goldstein Ferber S, Shoval G, Rossi R, Trezza V, Di Lorenzo G, Zalsman G, Weller A, Mann JJ
- 821 Effect of patient COVID-19 vaccine hesitancy on hospital care team perceptions
Caspi I, Freund O, Pines O, Elkana O, Ablin JN, Bornstein G

Randomized Clinical Trial

- 830** Improvement of inflammatory response and gastrointestinal function in perioperative of cholelithiasis by Modified Xiao-Cheng-Qi decoction
Sun BF, Zhang F, Chen QP, Wei Q, Zhu WT, Ji HB, Zhang XY

CASE REPORT

- 844** Metagenomic next-generation sequencing for pleural effusions induced by viral pleurisy: A case report
Liu XP, Mao CX, Wang GS, Zhang MZ
- 852** *Clostridium perfringens* gas gangrene caused by closed abdominal injury: A case report and review of the literature
Li HY, Wang ZX, Wang JC, Zhang XD
- 859** Is lymphatic invasion of microrectal neuroendocrine tumors an incidental event?: A case report
Ran JX, Xu LB, Chen WW, Yang HY, Weng Y, Peng YM
- 866** *Pneumocystis jirovecii* diagnosed by next-generation sequencing of bronchoscopic alveolar lavage fluid: A case report and review of literature
Cheng QW, Shen HL, Dong ZH, Zhang QQ, Wang YF, Yan J, Wang YS, Zhang NG
- 874** Identification of 1q21.1 microduplication in a family: A case report
Huang TT, Xu HF, Wang SY, Lin WX, Tung YH, Khan KU, Zhang HH, Guo H, Zheng G, Zhang G
- 883** Double pigtail catheter reduction for seriously displaced intravenous infusion port catheter: A case report
Liu Y, Du DM
- 888** Thyroid storm in a pregnant woman with COVID-19 infection: A case report and review of literatures
Kim HE, Yang J, Park JE, Baek JC, Jo HC
- 896** Computed tomography diagnosed left ovarian venous thrombophlebitis after vaginal delivery: A case report
Wang JJ, Hui CC, Ji YD, Xu W
- 903** Preoperative 3D reconstruction and fluorescent indocyanine green for laparoscopic duodenum preserving pancreatic head resection: A case report
Li XL, Gong LS
- 909** Unusual presentation of systemic lupus erythematosus as hemophagocytic lymphohistiocytosis in a female patient: A case report
Peng LY, Liu JB, Zuo HJ, Shen GF
- 918** Polyarteritis nodosa presenting as leg pain with resolution of positron emission tomography-images: A case report
Kang JH, Kim J
- 922** Easily misdiagnosed complex Klippel-Trenaunay syndrome: A case report
Li LL, Xie R, Li FQ, Huang C, Tuo BG, Wu HC

- 931** Benign lymphoepithelial cyst of parotid gland without human immunodeficiency virus infection: A case report
Liao Y, Li YJ, Hu XW, Wen R, Wang P
- 938** Epithelioid trophoblastic tumor of the lower uterine segment and cervical canal: A case report
Yuan LQ, Hao T, Pan GY, Guo H, Li DP, Liu NF
- 945** Treatment of portosystemic shunt-borne hepatic encephalopathy in a 97-year-old woman using balloon-occluded retrograde transvenous obliteration: A case report
Nishi A, Kenzaka T, Sogi M, Nakaminato S, Suzuki T
- 952** Development of Henoch-Schoenlein purpura in a child with idiopathic hypereosinophilia syndrome with multiple thrombotic onset: A case report
Xu YY, Huang XB, Wang YG, Zheng LY, Li M, Dai Y, Zhao S
- 962** Three cases of jejunal tumors detected by standard upper gastrointestinal endoscopy: A case series
Lee J, Kim S, Kim D, Lee S, Ryu K
- 972** Omental infarction diagnosed by computed tomography, missed with ultrasonography: A case report
Hwang JK, Cho YJ, Kang BS, Min KW, Cho YS, Kim YJ, Lee KS

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Sahand Samieirad, DDS, MS, MSc, Associate Professor, Oral and Maxillofacial Surgery Department, Mashhad Dental School, Mashhad University of Medical Sciences, Mashhad 9178613111, Iran. samieerads@mums.ac.ir

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: Si Zhao; 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

February 6, 2023

COPYRIGHT

© 2023 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>



Double pigtail catheter reduction for seriously displaced intravenous infusion port catheter: A case report

Yu Liu, Duan-Ming Du

Specialty type: Surgery

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): B

Grade C (Good): 0

Grade D (Fair): 0

Grade E (Poor): 0

P-Reviewer: Dragonieri S, Italy

Received: August 25, 2022

Peer-review started: August 25, 2022

First decision: December 20, 2022

Revised: December 29, 2022

Accepted: January 10, 2023

Article in press: January 10, 2023

Published online: February 6, 2023



Yu Liu, Duan-Ming Du, Department of Interventional Therapy, Shenzhen Second People's Hospital, The First Affiliated Hospital of Shenzhen University, Shenzhen 518035, Guangdong Province, China

Corresponding author: Duan-Ming Du, PhD, Chief Doctor, Department of Interventional Therapy, Shenzhen Second People's Hospital, The First Affiliated Hospital of Shenzhen University, No. 3002 Sungang Road, Futian District, Shenzhen 518035, Guangdong Province, China. dmd69@163.com

Abstract

BACKGROUND

Implanted intravenous infusion port (TIAP) is mainly used for patients who need central venous infusion and poor peripheral vascular conditions. With the advantages of easy to carry, long maintenance cycle, few complications and excellent quality of life, it has been widely used in the fields of malignant tumor chemotherapy, parenteral nutrition support and repeated blood collection. Implanted intravenous infusion port (IVAP) dislocation can have significant complications if not recognised and reinstated immediately.

CASE SUMMARY

A 24-year-old man was treated with adjuvant chemotherapy for osteosarcoma. Severe displacement of IVAP catheter was found by chest X-ray examination. The IVAP cannot be used normally. Therefore, we conducted an emergency procedure to reset the catheter through double pigtail catheters, the operation was successful and the infusion port was restored.

CONCLUSION

When IVAP catheter displacement cannot be reset by conventional techniques, two pigtail catheters can be successfully used instead.

Key Words: Catheter; Displaced catheter; Implantable; Implanted intravenous infusion port; Pigtail catheter; Case report

©The Author(s) 2023. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: In the face of serious ectopic infusion port, we successfully solved the problem with double pig tail catheter.

Citation: Liu Y, Du DM. Double pigtail catheter reduction for seriously displaced intravenous infusion port catheter: A case report. *World J Clin Cases* 2023; 11(4): 883-887

URL: <https://www.wjgnet.com/2307-8960/full/v11/i4/883.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v11.i4.883>

INTRODUCTION

Implanted intravenous infusion port (IVAP) catheters are mainly used for patients who need central venous infusion therapy and have poor peripheral vascular conditions. It has been widely used in malignant tumour chemotherapy, parenteral nutrition support treatment, and repeated blood collection in various nations because of the benefits of easy carrying, extended maintenance time, few complications, and excellent quality of life. Inadequate care can lead to complications such as catheter displacement, obstruction, infection, pneumothorax, haemothorax, vascular damage, thrombus, and catheter rupture[1-4]. Among them, catheter displacement of the infusion port has become a critical complication as it affects the chemotherapy effect on patients and it can be life-threatening if the displacement is not recognised and repositioned promptly.

We describe a case with catheter displacement that could not be solved by conventional procedures which is a single pig tail catheter reduction or surgical removal of the port. Hence, we used the double pigtail catheters to reset the displaced catheter. Such interventional reduction surgery is rarely reported.

CASE PRESENTATION

Chief complaints

Our patient was a 24-year-old male with osteosarcoma at the distal end of the left calf. After the second chemotherapy round, the patient developed severe cough and vomiting, and it was difficult to push the catheter when using normal saline. Chest X-ray showed that the catheter had been displaced into a loop.

History of present illness

Osteosarcoma following chemotherapy.

History of past illness

On December 23, 2021, the patient experienced resection of a lesion of the distal left fibula, ankle fusion and microwave ablation.

Personal and family history

The patient denied having any specific family or personal history of any illnesses.

Physical examination

The patient's vital signs at the point of presentation were 36.4°C for body temperature, 114/73 mmHg for blood pressure, 96 beats per minute for pulse, and 20 breaths per minute for respiratory rate. During the physical examination, the patient cooperated and was conscious. A 15-cm surgical incision in the left leg was visible, skin temperature was normal, the plantar flexion and extension of the left ankle were limited, and movement and sensation of the left lower limb were normal.

Laboratory examinations

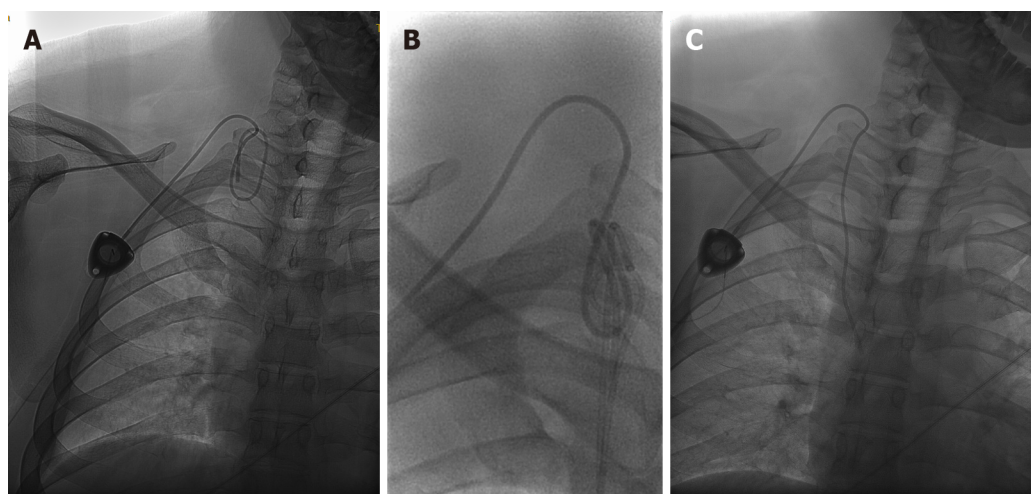
D-dimer dynamic: 0.57 mg/L.

Imaging examinations

Chest X-ray indicated that the catheter was displaced into a loop (Figure 1A).

FINAL DIAGNOSIS

The final diagnosis result is that ectopic catheter in infusion port.



DOI: 10.12998/wjcc.v11.i4.883 Copyright ©The Author(s) 2023.

Figure 1 X-ray found severe ectopic infusion port. A: Preoperative examination revealed severe ectopic infusion port; B: Intraoperative film, two 5F pigtail catheters used to reposition the ectopic infusion port catheter; C: The ectopic infusion port catheter has been successfully reset, and the end of the catheter in the inferior margin of the 5th posterior rib.

TREATMENT

After consulting with the appropriate departments, we prepared to reset the IVAP using an interventional approach. The patient lay flat on the digital subtraction angiography examination bed during the procedure. Digital subtraction angiography fluoroscopy showed that the catheter was displaced into a loop. We used the modified Seldinger puncture to puncture the right femoral vein, and 5F vascular sheath was successfully implanted. Using a long exchange guide wire, we guided the 5F pigtail catheter (Yixinda SCW-StraightPigtail-05110) to the right jugular vein, through the natural bending at the front end of the catheter, trapped the middle and long section of the infusion port catheter, and reset the infusion port catheter by slightly rotating and pulling down[5,6]. Due to the severe displacement of the infusion tube, we failed to reset the catheter using one pigtail. Therefore, we used the same method to puncture the left femoral vein and successfully reset the displaced infusion port catheter using the double pigtail catheter (Figure 1B and C).

OUTCOME AND FOLLOW-UP

Post-operation, the patient did not complain of discomfort and successfully completed the third chemotherapy in the ward.

DISCUSSION

IVAP chemotherapy can give patients continuous venous access and shield their peripheral blood vessels from harm from irritating medications[7]. Because of the benefits of easy carrying, long maintenance period, few complications and high quality of life of patients, it has been widely used in malignant tumour chemotherapy, parenteral nutrition support treatment and repeated blood collection. Increased attention has been paid to complications related to transfusion port such as thrombosis, infection, displacement, pneumothorax and others. Among them, the displacement of transfusion port pipeline is a significant complication of transfusion port implantation, as it affects chemotherapy effectivity and can be life threatening[8]. Catheter displacement may be caused by: (1) A catheter that is too short, and its end position is 1/3 above the superior vena cava; (2) strenuous exercise of the arm or shoulder; (3) severe cough; and (4) repeated vomiting. The catheter displacement in our patient may have been due to repeated vomiting during the second chemotherapy session[9,10].

CONCLUSION

When the catheter is displaced into a loop, the general interventional reduction surgery may not be sufficient to reset the displaced catheter. Thus, we can adopt the method of co-reduction using double

pigtails to increase the traction force of the catheter reduction and make the pull-down force stronger.

ACKNOWLEDGEMENTS

We thank the patient for participating in the study and for agreeing to undergo follow-ups.

FOOTNOTES

Author contributions: Liu Y carried out the study, participated in data collection, and drafted the manuscript; Du DM performed statistical analysis and participated in study design and participated in the acquisition, analysis, and interpretation of the data, and drafted the manuscript; all authors read and approved the final manuscript.

Supported by Shenzhen Key Medical Discipline Construction Fund, No. SZXK052.

Informed consent statement: Informed written consent was obtained from the patient for publication of this report and any accompanying images.

Conflict-of-interest statement: All the authors declare that they have no conflict of interest.

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: Yu Liu 0000-0001-9528-4728; Duan-Ming Du 0000-0002-3360-9563.

S-Editor: Liu JH

L-Editor: A

P-Editor: Liu JH

REFERENCES

- 1 **Chou PL**, Fu JY, Cheng CH, Chu Y, Wu CF, Ko PJ, Liu YH, Wu CY. Current port maintenance strategies are insufficient: View based on actual presentations of implanted ports. *Medicine (Baltimore)* 2019; **98**: e17757 [PMID: 31689833 DOI: 10.1097/MD.00000000000017757]
- 2 **Ding X**, Ding F, Wang Y, Wang L, Wang J, Xu L, Li W, Yang J, Meng X, Yuan M, Chu J, Ge F, Dong W, Xue M; Shanghai Cooperation Group on Central Venous Access Vascular Access Committee of the Solid Tumor Theranostics Committee, Shanghai Anti-Cancer Association. Shanghai expert consensus on totally implantable access ports 2019. *J Interv Med* 2019; **2**: 141-145 [PMID: 34805890 DOI: 10.1016/j.jimed.2019.10.008]
- 3 **Xu L**, Qin W, Zheng W, Sun X. Ultrasound-guided totally implantable venous access ports *via* the right innominate vein: a new approach for patients with breast cancer. *World J Surg Oncol* 2019; **17**: 196 [PMID: 31767003 DOI: 10.1186/s12957-019-1727-0]
- 4 **Marcy PY**, Schiappa R, Ferrero JM, Dahlet C, Brenet O, Yazbec G, Dubois PY, Salm B, Fouche Y, Mari V, Montastruc M, Lebre C, Ancel B, Paillocher N, Dupoirion D, Rangeard O, Gal J, Ettaiche M, Chateau Y, Chamorey E. Patient satisfaction and acceptance of their totally implanted central venous catheter: a French prospective multicenter study. *J Vasc Access* 2017; **18**: 390-395 [PMID: 28731491 DOI: 10.5301/jva.5000744]
- 5 **Chen GQ**, Wu Y, Zhao KF, Shi RS. Removal of "ruptured" pulmonary artery infusion port catheter by pigtail catheter combined with gooseneck trap: A case report. *World J Clin Cases* 2021; **9**: 8820-8824 [PMID: 34734061 DOI: 10.12998/wjcc.v9.i29.8820]
- 6 **Letachowicz K**, Gołębiowski T, Miś M, Wolańczyk M, Zmonarski S, Krajewska M. Partial breakage of a tunneled dialysis catheter: An uncommon finding. *Hemodial Int* 2021; **25**: E15-E17 [PMID: 33073510 DOI: 10.1111/hdi.12894]
- 7 **Nagasawa Y**, Shimizu T, Sonoda H, Mekata E, Wakabayashi M, Ohta H, Murata S, Mori T, Naka S, Tani T. A comparison of outcomes and complications of totally implantable access port through the internal jugular vein versus the subclavian vein. *Int Surg* 2014; **99**: 182-188 [PMID: 24670030 DOI: 10.9738/INTSURG-D-13-00185.1]
- 8 **Shankar G**, Jadhav V, Ravindra S, Babu N, Ramesh S. Totally Implantable Venous Access Devices in Children Requiring Long-Term Chemotherapy: Analysis of Outcome in 122 Children from a Single Institution. *Indian J Surg Oncol* 2016; **7**: 326-331 [PMID: 27651694 DOI: 10.1007/s13193-015-0485-x]

- 9 **Lv DN**, Xu HZ, Zheng LL, Chen LL, Ling Y, Ye AQ. Extravasation of chemotherapeutic drug from an implantable intravenous infusion port in a child: A case report. *World J Clin Cases* 2021; **9**: 7840-7844 [PMID: [34621835](#) DOI: [10.12998/wjcc.v9.i26.7840](#)]
- 10 **Miao J**, Ji L, Lu J, Chen J. Randomized clinical trial comparing ultrasound-guided procedure with the Seldinger's technique for placement of implantable venous ports. *Cell Biochem Biophys* 2014; **70**: 559-563 [PMID: [24748179](#) DOI: [10.1007/s12013-014-9956-x](#)]



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>

