World Journal of *Clinical Cases*

World J Clin Cases 2021 November 16; 9(32): 9699-10051





Published by Baishideng Publishing Group Inc

W J C C World Journal of Clinical Cases

Contents

Thrice Monthly Volume 9 Number 32 November 16, 2021

REVIEW

9699 Emerging role of long noncoding RNAs in recurrent hepatocellular carcinoma Fang Y, Yang Y, Li N, Zhang XL, Huang HF

MINIREVIEWS

9711 Current treatment strategies for patients with only peritoneal cytology positive stage IV gastric cancer Bausys A, Gricius Z, Aniukstyte L, Luksta M, Bickaite K, Bausys R, Strupas K

ORIGINAL ARTICLE

Case Control Study

9722 Botulinum toxin associated with fissurectomy and anoplasty for hypertonic chronic anal fissure: A casecontrol study

D'Orazio B, Geraci G, Famà F, Terranova G, Di Vita G

9731 Correlation between circulating endothelial cell level and acute respiratory distress syndrome in postoperative patients

Peng M, Yan QH, Gao Y, Zhang Z, Zhang Y, Wang YF, Wu HN

Retrospective Study

9741 Effects of early rehabilitation in improvement of paediatric burnt hands function

Zhou YQ, Zhou JY, Luo GX, Tan JL

9752 Intracortical screw insertion plus limited open reduction in treating type 31A3 irreducible intertrochanteric fractures in the elderly

Huang XW, Hong GQ, Zuo Q, Chen Q

9762 Treatment effects and periodontal status of chronic periodontitis after routine Er:YAG laser-assisted therapy

Gao YZ, Li Y, Chen SS, Feng B, Wang H, Wang Q

9770 Risk factors for occult metastasis detected by inflammation-based prognostic scores and tumor markers in biliary tract cancer

Hashimoto Y, Ajiki T, Yanagimoto H, Tsugawa D, Shinozaki K, Toyama H, Kido M, Fukumoto T

9783 Scapular bone grafting with allograft pin fixation for repair of bony Bankart lesions: A biomechanical study

Lu M, Li HP, Liu YJ, Shen XZ, Gao F, Hu B, Liu YF

High-resolution computed tomography findings independently predict epidermal growth factor receptor 9792 mutation status in ground-glass nodular lung adenocarcinoma

Zhu P, Xu XJ, Zhang MM, Fan SF



World Journal of Clinical Cases		
Conten	ts Thrice Monthly Volume 9 Number 32 November 16, 2021	
9804	Colorectal cancer patients in a tertiary hospital in Indonesia: Prevalence of the younger population and associated factors	
	Makmun D, Simadibrata M, Abdullah M, Syam AF, Shatri H, Fauzi A, Renaldi K, Maulahela H, Utari AP, Pribadi RR, Muzellina VN, Nursyirwan SA	
9815	Association between <i>Helicobacter pylori</i> infection and food-specific immunoglobulin G in Southwest China	
	Liu Y, Shuai P, Liu YP, Li DY	
9825	Systemic immune inflammation index, ratio of lymphocytes to monocytes, lactate dehydrogenase and prognosis of diffuse large B-cell lymphoma patients	
	Wu XB, Hou SL, Liu H	
	Clinical Trials Study	
9835	Evaluating the efficacy of endoscopic sphincterotomy on biliary-type sphincter of Oddi dysfunction: A retrospective clinical trial	
	Ren LK, Cai ZY, Ran X, Yang NH, Li XZ, Liu H, Wu CW, Zeng WY, Han M	
	Observational Study	
9847	Management of pouch related symptoms in patients who underwent ileal pouch anal anastomosis surgery for adenomatous polyposis	
	Gilad O, Rosner G, Brazowski E, Kariv R, Gluck N, Strul H	
9857	Presepsin as a biomarker for risk stratification for acute cholangitis in emergency department: A single- center study	
	Zhang HY, Lu ZQ, Wang GX, Xie MR, Li CS	
	Prospective Study	
9869	Efficacy of Yiqi Jianpi anti-cancer prescription combined with chemotherapy in patients with colorectal cancer after operation	
	Li Z, Yin DF, Wang W, Zhang XW, Zhou LJ, Yang J	
	META-ANALYSIS	
9878	Arthroplasty <i>vs</i> proximal femoral nails for unstable intertrochanteric femoral fractures in elderly patients: a systematic review and meta-analysis	
	Chen WH, Guo WX, Gao SH, Wei QS, Li ZQ, He W	
	CASE REPORT	
9889	Synchronous multiple primary malignancies of the esophagus, stomach, and jejunum: A case report	
	Li Y, Ye LS, Hu B	
9896	Idiopathic acute superior mesenteric venous thrombosis after renal transplantation: A case report	
	Zhang P, Li XJ, Guo RM, Hu KP, Xu SL, Liu B, Wang QL	
9903	Next-generation sequencing technology for diagnosis and efficacy evaluation of a patient with visceral leishmaniasis: A case report	
	Lin ZN, Sun YC, Wang JP, Lai YL, Sheng LX	



World Journal of Clinical Cases		
Contents Thrice Monthly Volume 9 Number 32 November 16, 2		
9911	Cerebral air embolism complicating transbronchial lung biopsy: A case report	
	Herout V, Brat K, Richter S, Cundrle Jr I	
9917	Isolated synchronous Virchow lymph node metastasis of sigmoid cancer: A case report	
	Yang JQ, Shang L, Li LP, Jing HY, Dong KD, Jiao J, Ye CS, Ren HC, Xu QF, Huang P, Liu J	
9926	Clinical presentation and management of drug-induced gingival overgrowth: A case series	
	Fang L, Tan BC	
9935	Adult with mass burnt lime aspiration: A case report and literature review	
	Li XY, Hou HJ, Dai B, Tan W, Zhao HW	
9942	Massive hemothorax due to intercostal arterial bleeding after percutaneous catheter removal in a multiple- trauma patient: A case report	
	Park C, Lee J	
9948	Hemolymphangioma with multiple hemangiomas in liver of elderly woman with history of gynecological malignancy: A case report	
	Wang M, Liu HF, Zhang YZZ, Zou ZQ, Wu ZQ	
9954	Rare location and drainage pattern of right pulmonary veins and aberrant right upper lobe bronchial branch: A case report	
	Wang FQ, Zhang R, Zhang HL, Mo YH, Zheng Y, Qiu GH, Wang Y	
9960	Respiratory failure after scoliosis correction surgery in patients with Prader-Willi syndrome: Two case reports	
	Yoon JY, Park SH, Won YH	
9970	Computed tomography-guided chemical renal sympathetic nerve modulation in the treatment of resistant hypertension: A case report	
	Luo G, Zhu JJ, Yao M, Xie KY	
9977	Large focal nodular hyperplasia is unresponsive to arterial embolization: A case report	
	Ren H, Gao YJ, Ma XM, Zhou ST	
9982	Fine-needle aspiration cytology of an intrathyroidal nodule diagnosed as squamous cell carcinoma: A case report	
	Yu JY, Zhang Y, Wang Z	
9990	Extensive abdominal lymphangiomatosis involving the small bowel mesentery: A case report	
	Alhasan AS, Daqqaq TS	
9997	Gastrointestinal symptoms as the first sign of chronic granulomatous disease in a neonate: A case report	
	Meng EY, Wang ZM, Lei B, Shang LH	
10006	Screw penetration of the iliopsoas muscle causing late-onset pain after total hip arthroplasty: A case report	
	Park HS, Lee SH, Cho HM, Choi HB, Jo S	



Conter	
	Thrice Monthly Volume 9 Number 32 November 16, 2021
10013	Uretero-lumbar artery fistula: A case report
	Chen JJ, Wang J, Zheng QG, Sun ZH, Li JC, Xu ZL, Huang XJ
10018	Rare mutation in MKRN3 in two twin sisters with central precocious puberty: Two case reports
	Jiang LQ, Zhou YQ, Yuan K, Zhu JF, Fang YL, Wang CL
10024	Primary mucosal-associated lymphoid tissue extranodal marginal zone lymphoma of the bladder from an imaging perspective: A case report
	Jiang ZZ, Zheng YY, Hou CL, Liu XT
10033	Focal intramural hematoma as a potential pitfall for iatrogenic aortic dissection during subclavian artery stenting: A case report
	Zhang Y, Wang JW, Jin G, Liang B, Li X, Yang YT, Zhan QL
10040	Ventricular tachycardia originating from the His bundle: A case report
	Zhang LY, Dong SJ, Yu HJ, Chu YJ
10046	Posthepatectomy jaundice induced by paroxysmal nocturnal hemoglobinuria: A case report
	Liang HY, Xie XD, Jing GX, Wang M, Yu Y, Cui JF



Contents

Thrice Monthly Volume 9 Number 32 November 16, 2021

ABOUT COVER

Editorial Board Member of World Journal of Clinical Cases, Jalaj Garg, FACC, MD, Academic Research, Assistant Professor, Division of Cardiology, Medical College of Wisconsin, Milwaukee, WI 53226, United States. garg.jalaj@yahoo.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 indexed in Science Citation Index Expanded (also known as SciSearch®), Journal Citation Reports/Science Edition, Scopus, PubMed, and PubMed Central. The 2021 Edition of Journal Citation Reports® cites the 2020 impact factor (IF) for WJCC as 1.337; IF without journal self cites: 1.301; 5-year IF: 1.742; Journal Citation Indicator: 0.33; Ranking: 119 among 169 journals in medicine, general and internal; and Quartile category: Q3. The WJCC's CiteScore for 2020 is 0.8 and Scopus CiteScore rank 2020: General Medicine is 493/793.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: Jia-Hui Li; Production Department Director: Yu-Jie Ma; Editorial Office Director: Jin-Lei Wang.

NAME OF JOURNAL	INSTRUCTIONS TO AUTHORS
World Journal of Clinical Cases	https://www.wjgnet.com/bpg/gerinfo/204
ISSN	GUIDELINES FOR ETHICS DOCUMENTS
ISSN 2307-8960 (online)	https://www.wjgnet.com/bpg/GerInfo/287
LAUNCH DATE	GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH
April 16, 2013	https://www.wjgnet.com/bpg/gerinfo/240
FREQUENCY	PUBLICATION ETHICS
Thrice Monthly	https://www.wjgnet.com/bpg/GerInfo/288
EDITORS-IN-CHIEF	PUBLICATION MISCONDUCT
Dennis A Bloomfield, Sandro Vento, Bao-Gan Peng	https://www.wjgnet.com/bpg/gerinfo/208
EDITORIAL BOARD MEMBERS	ARTICLE PROCESSING CHARGE
https://www.wjgnet.com/2307-8960/editorialboard.htm	https://www.wjgnet.com/bpg/gerinfo/242
PUBLICATION DATE	STEPS FOR SUBMITTING MANUSCRIPTS
November 16, 2021	https://www.wignet.com/bpg/GerInfo/239
COPYRIGHT	ONLINE SUBMISSION
© 2021 Baishideng Publishing Group Inc	https://www.f6publishing.com

© 2021 Baishideng Publishing Group Inc. All rights reserved. 7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA E-mail: bpgoffice@wjgnet.com https://www.wjgnet.com



W J C C World Journal of Clinical Cases

Submit a Manuscript: https://www.f6publishing.com

World J Clin Cases 2021 November 16; 9(32): 9954-9959

DOI: 10.12998/wjcc.v9.i32.9954

ISSN 2307-8960 (online)

CASE REPORT

Rare location and drainage pattern of right pulmonary veins and aberrant right upper lobe bronchial branch: A case report

Fu-Qiang Wang, Rui Zhang, Han-Lu Zhang, Yun-Hai Mo, Yu Zheng, Guang-Hao Qiu, Yun Wang

ORCID number: Fu-Qiang Wang 0000-0002-0017-9560; Rui Zhang 0000-0001-7596-139X; Han-Lu Zhang 0000-0003-2964-0848; Yun-Hai Mo 0000-0002-1074-4746; Yu Zheng 0000-0002-8538-7376; Guang-Hao Qiu 0000-0002-9816-311X; Yun Wang 0000-0002-6597-9905.

Author contributions: Wang FQ and Zhang R contributed equally to this work; Wang FQ, Zhang R and Wang Y designed and performed the research; Zhang HL contributed analytic tools; Mo YH, Zheng Y and Qiu GH analyzed the data; Wang FQ wrote the paper; Wang Y revised the paper; all authors have read and approved the final manuscript.

Supported by the Key Research Project of Sichuan Province, No. 2020YFS0249; and the National Key Research Project of China, No. 2017YFC0113502.

Informed consent statement:

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

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

CARE Checklist (2016) statement:

The authors have read the CARE Checklist (2016), and the

Fu-Qiang Wang, Han-Lu Zhang, Yu Zheng, Guang-Hao Qiu, Yun Wang, Department of Thoracic Surgery, West China Hospital, Sichuan University, Chengdu 610041, Sichuan Province, China

Rui Zhang, Department of Thoracic Surgery, Chengdu Seventh People's Hospital, Chengdu 610213, Sichuan Province, China

Yun-Hai Mo, Department of Radiology, Chengdu Seventh People's Hospital, Chengdu 610213, Sichuan Province, China

Corresponding author: Yun Wang, MD, PhD, Professor, Department of Thoracic Surgery, West China Hospital, Sichuan University, No. 37 Guoxue Alley, Chengdu 610041, Sichuan Province, China. yunwwang@yeah.net

Abstract

BACKGROUND

Complex aberration in lung is rare, which may increase risk of vascular injury and cause ligation of wrong pulmonary vein or bronchus by mistake during lung surgery, and result in sever complication like pulmonary congestion or atelectasis.

CASE SUMMARY

A 44-year-old female was admitted for a ground glass nodule (24 mm in diameter) in her right upper lobe. Video-assisted thoracoscopic (VATS) right upper lobectomy with lymph nodes dissection was performed. During operation, we simultaneously identified extremely rare aberrations of right preeparterial bronchus, right upper lobe vein behind pulmonary artery and right middle lobe vein drained into left atrium in this patient. The patient was well recovered and discharged at the postoperative-day 4.

CONCLUSION

Preoperatively, three-dimensional reconstruction can help to identify inconspicuous variation of pulmonary vessels and bronchus effectively. During lung surgery, if anatomic aberration is suspected, careful dissection of vessels and bronchus will help to confirm whether there is an aberration or not.

Key Words: Thoracic surgery; Video-assisted surgery; Anatomic variation; Threedimensional reconstruction; Case report

©The Author(s) 2021. Published by Baishideng Publishing Group Inc. All rights reserved.



WJCC | https://www.wjgnet.com

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: htt p://creativecommons.org/License s/by-nc/4.0/

Specialty type: Medicine, research and experimental

Country/Territory of origin: China

Peer-review report's scientific quality classification

Grade A (Excellent): 0 Grade B (Very good): 0 Grade C (Good): C Grade D (Fair): 0 Grade E (Poor): 0

Received: June 11, 2021

Peer-review started: June 11, 2021 First decision: July 15, 2021 Revised: August 9, 2021 Accepted: September 19, 2021 Article in press: September 19, 2021 Published online: November 16, 2021

P-Reviewer: Darbari A S-Editor: Wang LL L-Editor: A P-Editor: Liu JH



Core Tip: Complex aberration in lung is rare but inappropriate management of aberration may result in severe complications. In this case, we presented an extremely rare aberrations of right preeparterial bronchus, right upper lobe vein behind pulmonary artery and right middle lobe vein drained into left atrium simultaneously identified in one patient. This case highlights the importance of preoperative threedimensional reconstruction and careful skeletonization and identification of aberrant anatomic structures during surgery.

Citation: Wang FQ, Zhang R, Zhang HL, Mo YH, Zheng Y, Qiu GH, Wang Y. Rare location and drainage pattern of right pulmonary veins and aberrant right upper lobe bronchial branch: A case report. World J Clin Cases 2021; 9(32): 9954-9959

URL: https://www.wjgnet.com/2307-8960/full/v9/i32/9954.htm DOI: https://dx.doi.org/10.12998/wjcc.v9.i32.9954

INTRODUCTION

Aberrations of pulmonary vessels and the bronchus are potentially dangerous which may increase risk of vascular injury and transection of the wrong vessel(s) during surgery[1]. Due to the increasing number of lung cancer and lung surgery[2,3], preoperative identification of anatomic variation in lung is much important for the operation safety.

Thin-section computed tomography (CT) is widely applied before lung surgery[4, 5]. Recently, three-dimensional reconstruction has been increasingly adopted, which can demonstrate variations more intuitively^[1]. Herein, we reported the coexistence of infrequent location of right upper lobe vein, right pulmonary venous drainage pattern, and the right preeparterial bronchus in one patient (as evinced by dissection and imaging examination).

CASE PRESENTATION

Chief complaints

A 44-year-old female patient was admitted for ground-glass nodule (GGN) with a maximum diameter of 24 mm in the right upper lobe (Figure 1).

History of present illness

One month before admission, a GGN with a maximum diameter of 24 mm in her right upper lobe was found in chest CT for health examination. She had no pulmonary symptoms.

History of past illness

She underwent breast augmentation about seven years ago and denied any other surgical history.

Personal and family history

The patient denied any relevant family history.

Physical examination

Her temperature was 36.5°C, heart rate was 78 bpm, respiratory rate was 20 breaths per minute, blood pressure was 132/97 mmHg and oxygen saturation in room air was 100%. Her chest wall and breath sounds were normal. Heart rhythm was regular.

Laboratory examinations

Preoperatively, her routine blood test, urinalysis, liver function, renal function and coagulation test were all in the normal ranges.

Imaging examinations

The Cranial and abdominal CT with contrast and bone scan with single photon



Wang FQ et al. Aberrant pulmonary veins and preeparterial bronchus

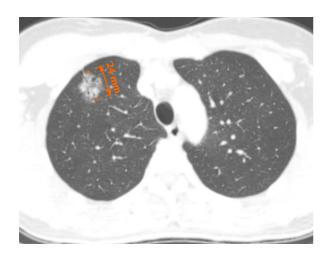


Figure 1 Ground-glass nodule of right upper lobe in chest computed tomography.

emission computed tomography showed no sign of metastasis.

FINAL DIAGNOSIS

The final diagnosis of the presented case is adenocarcinoma in upper lobe of right lung.

TREATMENT

Considering that the diameter of this GGN was more than 20mm, we thus planned to perform VATS right upper lobectomy and lymph node dissection, if necessary.

There was no obvious aberration when we explored the thoracic cavity at the beginning. We dissected mediastinal pleura on the ventral side of the hilum. Thereafter, the right pulmonary artery was shown but there was no right upper lobe vein (RULV). We then divided the horizontal fissure and finally the RULV was shown on the dorsal side of the right pulmonary artery (RPA) (Figure 2). To identify the right middle lobe vein (RMLV), we retraced the RULV to the dorsal side of the right descending interlobar artery, while no venous convergence of RMLV and RULV was found. Subsequently, we stapled RULV and A1 to reveal the right upper lobe bronchus. Interestingly, instead of arising from the right upper lobe bronchus, B¹ in this case arose directly from the right main bronchus (RMB), also called the right preeparterial bronchus (Figure 3)[4]. B²⁺³ then arose as one trunk from the RMB below B¹. Intraoperative frozen section revealed that the GGN was an adenocarcinoma in superior lobe of right lung adenocarcinoma, so we performed a right upper lobectomy and systematic lymph node dissection.

Postoperatively, we carefully reviewed thin-section CT and reconstructed threedimension model of lung: Results showed that RULV lay behind the RPA and drained into the left atrium (LA) alone. RMLV joined the right lower lobe vein (RLLV) to form a short common trunk draining into LA (Figure 2). Meanwhile, B¹ arose from RMB alone and B²⁺³ arose from RMB below B¹ (Figure 3).

OUTCOME AND FOLLOW-UP

No postoperative complication arose. The patient was discharged on the postoperative day 4. The follow-up is performed in the out-patient department every 3 mo during the first year and every 6-8 mo during the following 2-5 years after surgery. Presently, the patient recovered well and showed no signs of recurrence upon the last follow-up. Written informed consent was obtained from the patient.

Zaishidena® WJCC | https://www.wjgnet.com

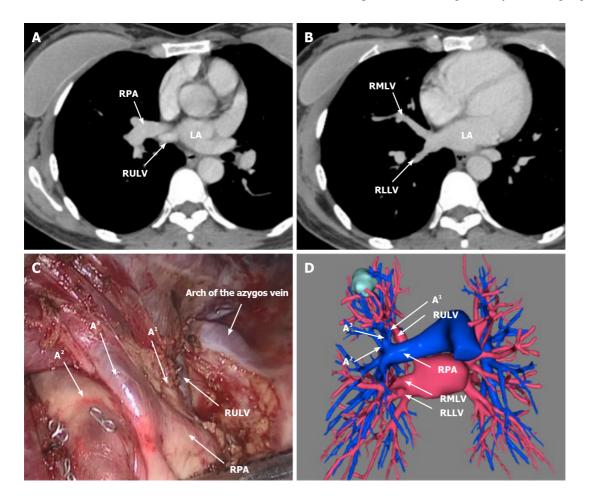


Figure 2 Anatomic aberration of pulmonary vessels. A: Right upper lobe vein (RULV) lies behind right pulmonary artery (RPA) in thin-section computed tomography (CT); 2B: Right middle lobe vein joins right lower lobe vein to form one common trunk vein drained into left atrium in thin-section CT; C: RULV lies behind right pulmonary artery under thoracoscope; D: Three-dimensional reconstruction of pulmonary vessels.

DISCUSSION

In this case, infrequent preeparterial bronchus and aberrations in course and location of pulmonary veins were found in one patient at the same time. Although the aberrations were not quite obvious to be identify in axial images preoperatively, we found such aberrations and avoided wrong ligation of vessels and bronchus during operation by careful dissection. Meanwhile, such aberrations were confirmed with postoperative three-dimension reconstruction visually. Based on the literature review, such complex aberrations of pulmonary vessels and bronchus had seldom been reported before.

Complex variations in pulmonary bronchus and vessels are quite rare and may increase the difficulty of lobectomy. Dr. Chassagnon reported that the right preeparterial bronchus occurred in only 0.9% of people in a study of 1200 bronchograms[4]. In this case, we dissected fissure firstly and divided the pulmonary artery and vein afterwards. So, the bronchus can be exposed optimally. But if we performed the singledirection thoracoscopic lobectomy and undermine fissure in the last stage, anomalous bronchus may cause difficulty of dissection. Besides, it is reported that RMLV joins RLLV to form one common trunk drain into LA in only in 2%-3% of patients[5]. However, it is worth noting that aberrant right pulmonary venous drainage patterns are not rare, which may occur in 32% of patients[5]. Ligation of such aberrant veins by mistake can result in severe complications.

Moreover, abnormal location of the entire RULV behind RPA is also extremely rare. There had been only three cases reported with such an aberration before [1, 6, 7]. This aberration caused several difficulties in our experience. Firstly, the RPA in this case was located in usual site of the right pulmonary vein which was also wrapped by pericardium. Hence, the right pulmonary trunk or its branch wrapped by pericardium might be misidentified as the RULV and then ligated by mistake. Secondly, due to the RPA being situated in front of the RULV, even after we divided the right upper lobe artery, the RPA still covered the proximal part of the RULV, which was posed



Zaishidena® WJCC | https://www.wjgnet.com

Wang FQ et al. Aberrant pulmonary veins and preeparterial bronchus

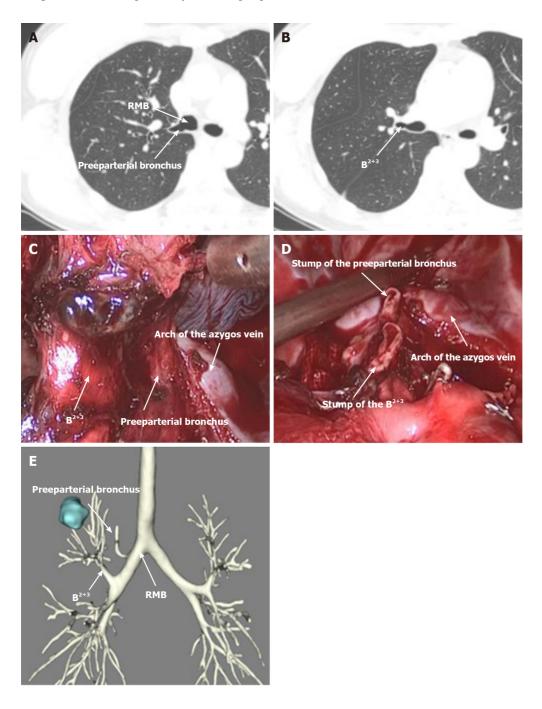


Figure 3 Abnormal right preeparterial bronchus. A: Right preeparterial bronchus arose from right main bronchus alone in thin-section computed tomography; B: B²⁺³ arose below right preeparterial bronchus from right main bronchus; C: Right preeparterial bronchus and B²⁺³ under thoracoscope; D: Stump of right preeparterial bronchus after stapling and B²⁺³ under thoracoscope; E: Three-dimensional reconstruction of trachea and bronchus.

difficulties to surgeons assessing whether middle lobe vein had been secured when stapling the RULV.

Compared with chest CT, three-dimensional reconstruction can help to identify variations more intuitively[8]. Preoperative chest CT is the most important form of imaging examination before lung surgery, but some variations are difficult to identify on axial images[9]. Three-dimensional reconstruction can help to identify variations more intuitively, however, preoperative three-dimensional reconstruction is not adopted as a matter of routine in most medical centers. Hence, it is necessary for thoracic surgeons to have knowledge of pulmonary anatomy variants, make full use of preoperative imaging, and carefully skeletonize and identify anatomic structures during surgery, especially for surgeons operating without the help of preoperative three-dimensional reconstruction.

Baisbidena® WJCC | https://www.wjgnet.com

CONCLUSION

In conclusion, we reported an extremely rare case of anatomic aberrations in course and location of right pulmonary veins and right preeparterial bronchus occurred simultaneously in one patient. Preoperative three-dimensional reconstruction and making full use of contrasted thin-section CT and is effective for identification of the anatomic variations. Furthermore, careful dissection and identification of anatomic structures can help to confirm the aberration and avoid wrong dissection or vascular injury during operation.

REFERENCES

- 1 Otsuki Y, Go T, Chang SS, Matsuura N, Yokomise H. Anomalous right upper lobe pulmonary veins draining posterior to the pulmonary artery. Gen Thorac Cardiovasc Surg 2019; 67: 901-903 [PMID: 30758813 DOI: 10.1007/s11748-019-01078-7]
- Postmus PE, Kerr KM, Oudkerk M, Senan S, Waller DA, Vansteenkiste J, Escriu C, Peters S; ESMO 2 Guidelines Committee. Early and locally advanced non-small-cell lung cancer (NSCLC): ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol 2017; 28: iv1-iv21 [PMID: 28881918 DOI: 10.1093/annonc/mdx222]
- 3 Park S, Park IK, Kim ER, Hwang Y, Lee HJ, Kang CH, Kim YT. Current Trends of Lung Cancer Surgery and Demographic and Social Factors Related to Changes in the Trends of Lung Cancer Surgery: An Analysis of the National Database from 2010 to 2014. Cancer Res Treat 2017; 49: 330-337 [PMID: 27456943 DOI: 10.4143/crt.2016.196]
- 4 Chassagnon G, Morel B, Carpentier E, Ducou Le Pointe H, Sirinelli D. Tracheobronchial Branching Abnormalities: Lobe-based Classification Scheme. Radiographics: a review publication of the Radiological Society of North America, Inc 2016; 36: 358-373 [PMID: 26824513 DOI: 10.1148/rg.2016150115
- 5 Marom EM, Herndon JE, Kim YH, McAdams HP. Variations in pulmonary venous drainage to the left atrium: implications for radiofrequency ablation. Radiology 2004; 230: 824-829 [PMID: 14739316 DOI: 10.1148/radiol.2303030315]
- 6 Ichiki Y, Kakizoe K, Hamatsu T, Suehiro T, Koike M, Tanaka F, Sugimachi K. A rare anomaly of the right superior pulmonary vein: Report of a case. Int J Surg Case Rep 2017; 38: 26-28 [PMID: 28732271 DOI: 10.1016/j.ijscr.2017.05.035]
- Yurugi Y, Nakamura H, Taniguchi Y, Miwa K, Fujioka S, Haruki T, Takagi Y, Matsuoka Y, 7 Kubouchi Y. Case of thoracoscopic right upper lobectomy for lung cancer with tracheal bronchus and a pulmonary vein variation. Asian J Endosc Surg 2012; 5: 93-95 [PMID: 22776372 DOI: 10.1111/j.1758-5910.2011.00115.x
- Nagashima T, Shimizu K, Ohtaki Y, Obayashi K, Kakegawa S, Nakazawa S, Kamiyoshihara M, Igai 8 H, Takeyoshi I. An analysis of variations in the bronchovascular pattern of the right upper lobe using three-dimensional CT angiography and bronchography. Gen Thorac Cardiovasc Surg 2015; 63: 354-360 [PMID: 25724170 DOI: 10.1007/s11748-015-0531-1]
- 9 Aokage K, Yoshida J, Ishii G, Matsumura Y, Haruki T, Hishida T, Nagai K. Identification of early t1b lung adenocarcinoma based on thin-section computed tomography findings. J Thorac Oncol 2013; 8: 1289-1294 [PMID: 24457240 DOI: 10.1097/JTO.0b013e31829f6d3b]



WJCC | https://www.wjgnet.com



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

