World Journal of Cardiology

Manuscript NO.: 30698 - Answering reviewers

CASE REPORT

Dysphagia after arteria lusoria dextra surgery: anatomical considerations before redo-surgery

ESPS Manuscript NO: 30698

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26rd of Novembre 2016

Freiburg (Germany)

Dear Mr. Ji and reviewers,

Thank you very much for working on our manuscript. We have found your suggestions very constructive and helpful in improving our paper. With the changes we have made, we hope it will be accepted for publication in *World Journal of Cardiology*. Enclosed you will find the revised manuscript according to your recommendations. All the changes we made in the manuscript are marked in red and commented.

Reviewer # 211914:

***Comment*:** This article presented a pediatric case of dysphagia caused by an aberrant right subclavian artery. After an operative treatment via right-sided thoracotomy, the dysphagia was persistent. Then, a redo-surgery via left-sided thoracotomy with transection of a persisting ligamentum arteriosum and shortening of the remaining lusorian arteries' stump was performed, which resulted in complete recovery. The history was prescribed in detail and the two figures are nicely presented.

I have following comments:

1. Authors reported an interesting case, which lead us to learn that there is a potential co-existence of the aberrant right subclavian artery and a ligamentum arteriosum. A good pre-operative plan may decrease the possibility of redo-surgery.

2. This article proposed a suggestion regarding the selecting of the diagnostic tool, i.e., authors suggested an age-dependent approach. Authors suggest echocardiography as the first-line tool for fetuses, newborns, and infants presenting the incidental findings of an arteria

lusoria. However, for older children and adolescents, the first-line modality should be MRA. This suggestion is a very good recommendation in diagnosis of patients with different ages.
3. Authors also suggest the median thoracotomy instead of right- or left-sided thoracotomy because this approach can resolve both abnormalities. This recommendation is innovative and beneficial to the management to this kind patient.
Answer to comment 1: Thanks a lot for reviewing and appreciating our article. We are grateful for you outlining so clearly what we wanted to demonstrate with this case.
Changes: None.

Reviewer # 227375
Comment: This is a rare case report about a pediatric case of dysphagia attributed to an aberrant right subclavian artery that unexpectedly caused persisting symptoms after corrective surgery via right-sided thoracotomy. The authors suggest considering a median thoracotomy to address both contrary structural conditions and to effectively treat a right arteria lusoria in combination with a left ligamentum arteriosum at the same time. This manuscript is nicely structured and well written.
I have several minor comments about this manuscript. Please consider the following comments.
1. Page 3, Abstract, line 1 Correct "sublavian" to "subclavian".
2. Page 7, Discussion, line 1, Correct "a dysphagia we attributed to" to "a dysphagia attributed to"? Sorry if I have got it wrong.
3. References [3] Correct "Posaciogl H" to "Posacioglu H". [10] Correct "Van Son JAM, Naudin ten Cate L" to van Son JA, ten Cate LN". References should appear in the order in which they are first cited in the text.
Answer to comment: Thanks a lot for appreciating our case report and revising it so thoroughly. We are really sorry for dimissing our mistakes on page 3, 7 and in the references, especially the order of the references.
Changes:
Page 3 and 7: corrected as suggested.
References 3 and 10: corrected as suggested.
References: The references were numbered according to their order of appearance in the main text of the manuscript.

Reviewer # 70411
***Comment*:** Arteria lusoria is the most common embryologic abnormality of the aortic arch. It is usually asymptomatic and fortuitously discovered. It can compress neighboring structures and cause dysphagia. In symptomatic cases or in the presence of an aneurysm of the arteria lusoria origin, it should be surgically treated. The authors present a case of persisting dysphagia symptoms after primary treatment via right-sided thoracotomy required redo-surgery via left-sided thoracotomy with transection of a persisting ligamentum arteriosum and shortening of the remaining lusorian arteries' stump. This case report has some significance for clinicians. However, the topic of the manuscript does not fit the scope of World Journal of Cardiology. If the authors could make a clear case how their study would fit the scope of the journal, they can always resubmit.
Answer to comment:
Indeed, the occurrence of a lusorian artery is not a rare anomaly, and even symptoms may be noticed quite frequently indicating surgical (routine) treatment. Usually, this is a straightforward procedure leading to subsequent freedom from discomfort, however,

not in our patient. What makes our case unique is the presence of a co-existing (obstructive) left sided ductal ligament in the left aortic arch with a right lusorian artery. Please compare the latter statement to the *Moss and Adams Textbook, Heart Disease in Infants, Children and Adolescents:* usually there is no co-existing ligament (see below Fig. 58.3. *Moss & Adams*) – contrary to the anatomic setting in right aortic arch, for example with left Kommerell diverticulum, where a vascular ring/sling is always present (as shown in Fig. 58.6. *Moss and Adams*). Unfortunately such a ligament is not clearly visible on MRI (or any other imaging techniques). We tried to highlight the interdisciplinary approach while considering redo-surgery. It is our view, with all due respect, that this rare variant of an otherwise well-known anatomic feature deserves attention, and still hope you will agree that that it has topical relevance for the *World Journal of Cardiology*.

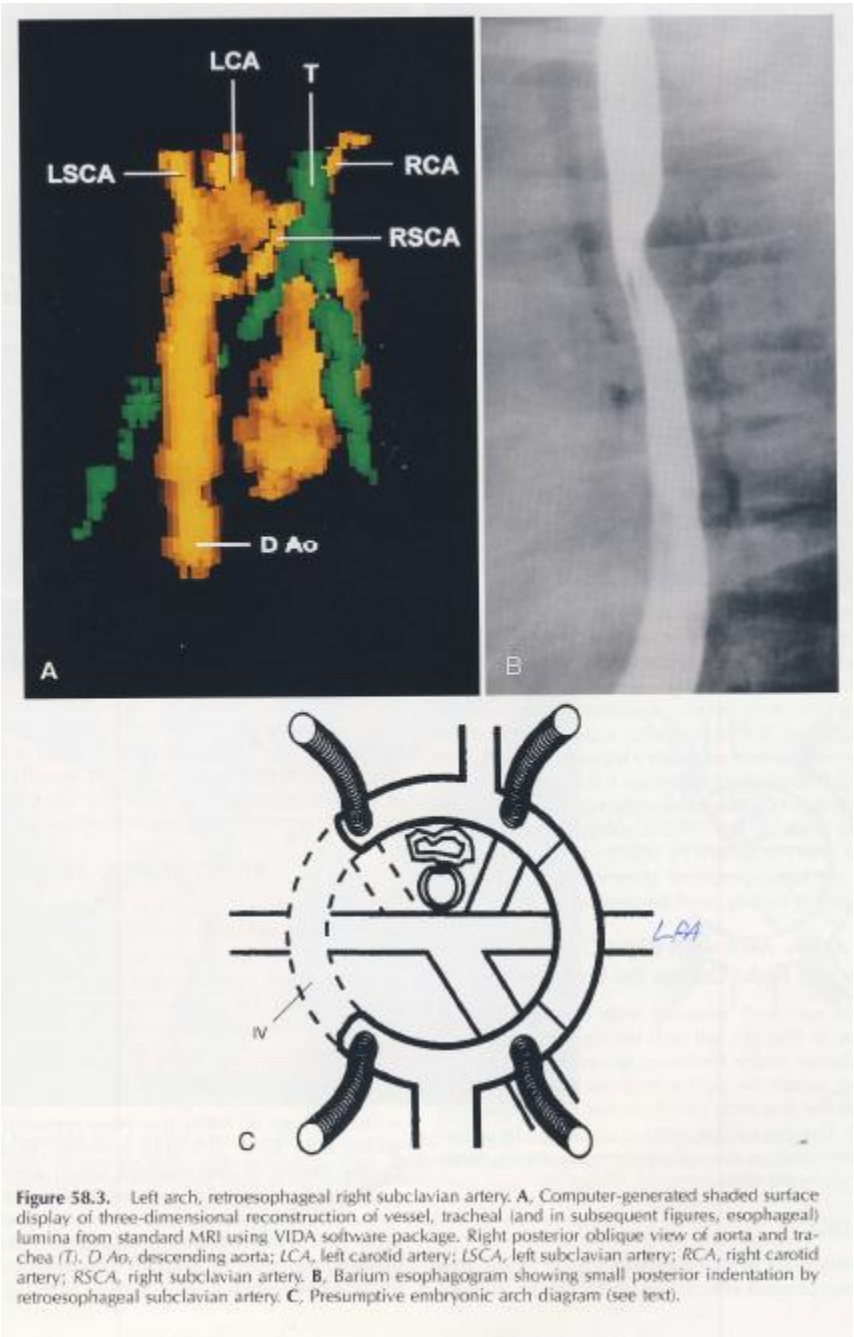

Figure 58.3. Left arch, retroesophageal right subclavian artery. **A**, Computer-generated shaded surface display of three-dimensional reconstruction of vessel, tracheal (and in subsequent figures, esophageal) lumina from standard MRI using VIDA software package. Right posterior oblique view of aorta and trachea (*T*). *D Ao*, descending aorta; *LCA*, left carotid artery; *LSCA*, left subclavian artery; *RCA*, right carotid artery; *RSCA*, right subclavian artery. **B**, Barium esophagogram showing small posterior indentation by retroesophageal subclavian artery. **C**, Presumptive embryonic arch diagram (see text).

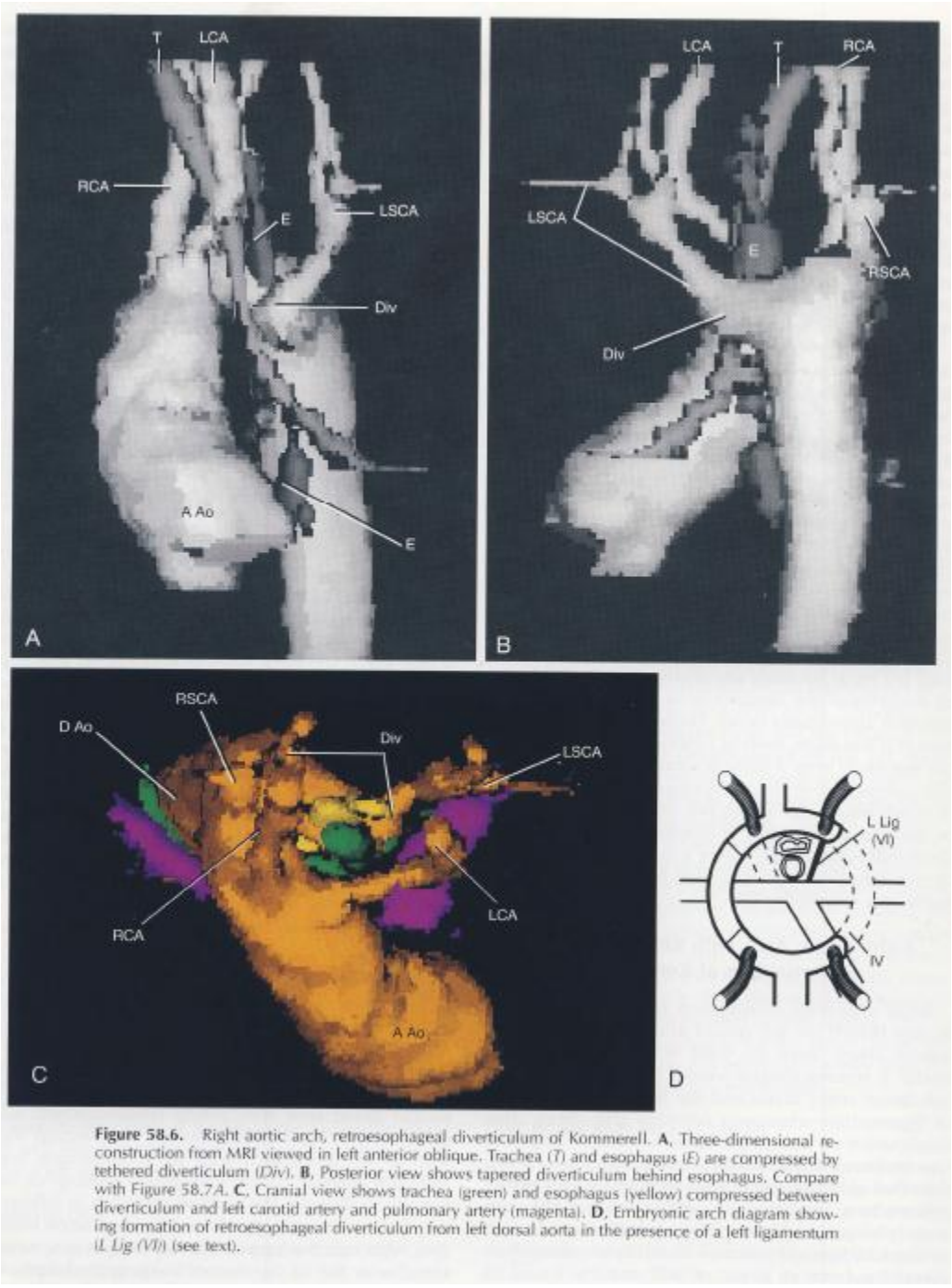

Figure 58.6. Right aortic arch, retroesophageal diverticulum of Kommerell. **A**, Three-dimensional reconstruction from MRI viewed in left anterior oblique. Trachea (*T*) and esophagus (*E*) are compressed by tethered diverticulum (*Div*). **B**, Posterior view shows tapered diverticulum behind esophagus. Compare with Figure 58.7*A*. **C**, Cranial view shows trachea (green) and esophagus (yellow) compressed between diverticulum and left carotid artery and pulmonary artery (magenta). **D**, Embryonic arch diagram showing formation of retroesophageal diverticulum from left dorsal aorta in the presence of a left ligamentum (*L Lig (VI)*) (see text).

Changes: None.

Reviewer # 211908:

***Comment*:** Very interesting case report in a child with symptomatic congenital vascular anatomy. It conveys a clear message.

Answer to comment: Thank you very much for reviewing and supporting our case report.

***Changes*:** None.

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Administrator:

First, we updated the manuscript according to the Guidelines and Requirements for Manuscript Revision-Case Report.

Comment 1: When you send back, please provide the format of doc, not the pdf. Thank you!"
Answer to comment 1: We are sorry for the inconvenience we caused.
Changes: The revised manuscript is provided in docx now.

Comment 2: Please offer the postcode! Thank you!
Answer to comment 2: We are sorry for not offering it that way in the first version.
Changes: The postcode of Freiburg, Germany (79106) is offered in the revised version.

Comment 3: Please offer signed pdf files for the three statements. Thank you!
Answer to comment 3:
1) Institutional review board statement: We are sorry to inform you that at Freiburg University neither the Heart Center with its Department of Congenital Heart Disease and Pediatric Cardiology nor the Department of Pediatrics and Adolescent Medicine have an institutional review board.
However, Ute Spiekerkoetter and Brigitte Stiller are both medical directors at Freiburg University, Ute Spiekerkoetter of the Department of Pediatrics and Adolescent Medicine and Brigitte Stiller of the Department of Pediatric Cardiology.
2) Informed consent statement: All involved persons, or their legal guardians, provided informed written consent prior to submitting the case report.
3) Conflict-of-interest statement: The authors have no conflict of interest to declare.
Changes: We attached signed pdf-files for the informed consent statement and the conflict of interest statement. We hope that the pdf-files include everything as requested.
As we cannot serve with an Institutional review board statement, we created a pdf-file with the appropriate information. We really hope that this won't be an obstacle for the publication. If there are any questions about it, please contact us.

Comment 4: Audio Core Tip: Please offer the audio core tip.
Answer to comment 4: We are sorry for not offering it before.
Changes: You will find the audio core tip attached as an AIFF-file with the size of 9.9 MB.

Comment 5: **Comments**... provided with clinical case reports should summarize the core contents of the article in one sentence to attract readers so that they could obtain the most important information in the least time.
Answer to comment 5: We are sorry for missing to provide such comment at first draft. Thank you for reminding and supporting us.
Changes: We drafted the missing comments and hope they contain all information as requested.

Comment 6: Please add PubMed citation numbers and DOI citation to the reference list and list all authors. Pleased provide PubMed citation numbers for the reference list, e.g. PMID and DOI, which can be found at http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed and http://www.crossref.org/SimpleTextQuery/, respectively. The numbers will be used in the E-version of this journal. Thanks very much for your co-operation.
Answer to comment 6: We are sorry for not providing all of them at first draft.
Changes: The PMID or/and DOI are now added to the reference list. Thank you.

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After we have reworked the manuscript we are grateful to the reviewers for the opportunity to carry out a revision. We hope that we have addressed the important issues you raised to your entire satisfaction.

With kind regards,

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