Impending Rupture Kommerell Diverticulum (KD) in Aberrant Right Subclavian Artery (ASCA)

Elsayed Younes
MD
Acting Consultant Vascular Surgeon,
King Abdulaziz University Hospital- Jeddah, Saudi Arabia.
Disclosure

Elsayed Younes

I do not have any potential conflict of interest
Background

• Aberrant right Subclavian artery (ASCA) is the most common congenital anomaly of the aortic arch with incidence of 0.4% - 1.8%.
• First described in 1735 at autopsy by Hunauld.
• Degenerative changes (Aneurysm) in the ASCA in 60% of patients, termed by Kommerell in 1936.
• Dysphagia lusoria described by Bayford in 1794.
• Symptomatic ASCA or KD should be treated
Case presentation

• 56 y male patient
• Hypertension, 2012: chest pain, CTA showed ASCA, dissection of the KD.
• Medical treatment for five years.
• Recurrent acute chest pain.
• CTA, showed dissection KD with aneurysmal dilatation extended to both SCA, increased size of the dissection with impending rupture (two intimal tears).
Treatment options

• The selection of treatment strategy for Kommerell's diverticulum should be based on the anatomy, comorbidities of the patient, and surgical expertise available.

• Treatment options include:
  - Open surgical repair.
  - Hybrid endovascular repair.
  - Total endovascular repair.
CTA FOLLOW UP

1W

3M
CTA 3M
CTA

1 ½ Y 2019

9/2017
Conclusion

• **Isolated dissection of the KD is rare.** It should be treated to avoid fatal rupture.

• **The procedure adopted:**
  - Less invasive treatment option with relatively low cost.
  - Neither open surgery nor a subclavian carotid transposition with TEVAR to repair the arch.
  - Keeping ante grade flow to the SCA.

• **To the best of our knowledge,** VSD muscular plug was not used for intimal tear sealing for symptomatic KD dissection. This opens the door for us for the possible use of the VSD plugs to be used in chronic dissections and possibly possible acute dissection.

• **Life long** surveillance is recommended to detect future possible complications.
Participants

- Reda Jamjoom, MD Head of Vascular surgery
- Elsayed Younes, MD acting consultant Vascular surgeon
- Usama Lotfi, MD, vascular consultant.
- Wessam Alhejely MD Intervention cardiology,
- Hosam Shoaib MD specialist in vascular surgery

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THANK YOU
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