

Right Aortic Arch with Aberrant left Subclavian Artery

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القوس الأبهري الأيمن مع شريان تحت الترقوة الأيسر الزائغ

انوبام كاكاريا، سخبال ساوهني، راجيف جين

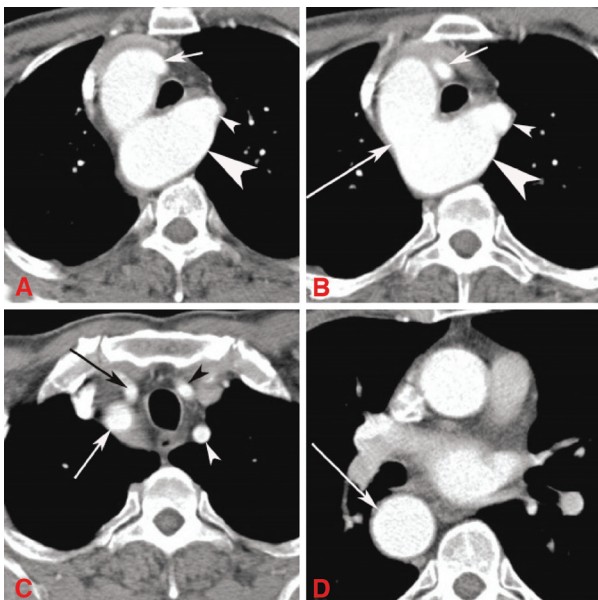


Figure 1: Axial contrast enhanced computed tomography scan of the thorax. The left common carotid artery (small arrows in A and B) is the first branch to arise from the right-sided aortic arch (long arrow in B). The left subclavian artery (small arrowheads in A, B and C) is the last branch to arise from Kommerell's diverticulum, a focal dilatation of the arch (large arrowhead in A and B). The black arrowhead points to the left common carotid artery, the black arrow to the right common carotid artery and the medium sized white arrow to right subclavian artery (C). The descending aorta continues inferiorly on the right side of the vertebral column.

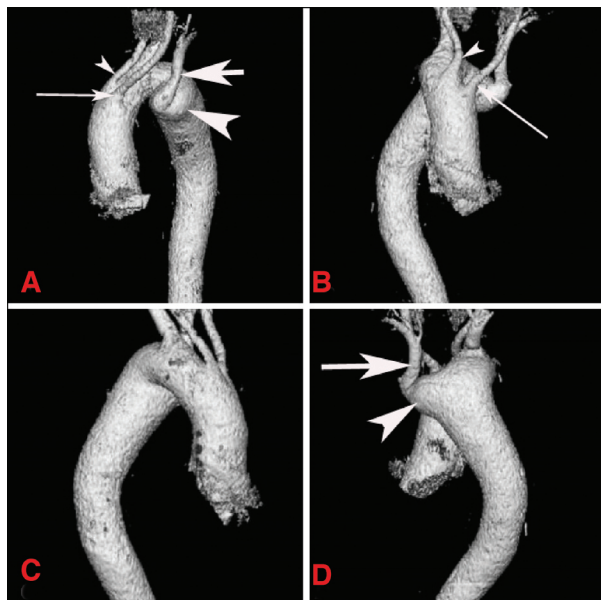


Figure 2: Three dimensional representation of the right aortic arch. The left common carotid artery (thin arrow in A and B) is the first branch to arise from the arch and the right common carotid artery (small arrowhead in A and B) is the second branch to arise from the arch. The aberrant left subclavian artery (large arrow in A and D) arises from the Kommerell's diverticulum (large arrowhead in A and D). The relationship of the vessels is shown from the posterior aspect (C).

THE PATIENT, A 53 YEAR OLD MAN, presented at Sultan Qaboos University Hospital, Oman, with a history of abdominal pain and alternating constipation and diarrhoea. A

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colonoscopy and a barium enema revealed a short segment of annular narrowing and a large polypoid mass in the rectodigmoid region. Subsequent histopathology identified a moderately differentiated adenocarcinoma. Computed tomography (CT) scans of the thorax and abdomen were carried out as staging procedures. The CT of thorax demonstrated a right aortic arch. The left common carotid artery, the first major artery to arise from the arch, is followed by the right common carotid, right subclavian and left subclavian arteries. The aberrant left subclavian artery takes its origin from a prominent Kommerell's diverticulum at the distal end of aortic arch. The descending aorta continues inferiorly to the right side of the vertebral column. The findings are consistent with a right arch of aorta with aberrant left subclavian artery [Figures 1 and 2].

Approximately 0.1% of population has a right sided aortic arch, and about half of these have an aberrant left subclavian artery which may arise either directly

from the aorta or from the Kommerell's diverticulum.¹ Although an aberrant left subclavian artery may occur in isolation, it is the commonest anomaly associated with a right aortic arch. Any symptoms, which result from an aberrant left subclavian artery, are associated with compression of the esophagus or trachea and are most likely to occur if its origin is dilated.^{2,3}

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