Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Radiology

Congenital Phlebectasia of Internal Jugular Vein

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DOI: 10.36347/sjmcr.2023.v11i06.042 | **Received:** 03.04.2023 | **Accepted:** 07.06.2023 | **Published:** 16.06.2023

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Abstract | **Case Report**

The internal jugular vein ectasia, or phebectasia as it is also called, is a rare entity that consists of the fusiform dilatation of the vein. Due to their thin walls, veins are often prone to dilation. In the neck, this dilation becomes apparent during the Valsalva maneuver, leading to the appearance of cervical enlargement. We report the case of a 8 old year child, presented a phlebectasia of the internal jugular vein. The clinical examination reveals a soft right-sided lateral cervical mass that increases in volume during the Valsalva maneuver. The diagnosis of internal jugular phlebectasia was confirmed by an CT angiography, which reveals a fusiform dilation of the internal jugular vein without complication.

Keywords: Ectasia, Jugular vein, Computed tomography angiography.

INTRODUCTION

Congenital ectasia of the internal jugular vein corresponds to congenital venous dilation without a sinuous course [1]. Nearly 100 cases of cervical venous ectasia have been published in the literature [2]. The main objective of this study is to demonstrate the role of medical imaging in the diagnosis and management of the congenital internal jugular vein ectasia.

CASE REPORT

We report the case of an 8-year-old child, with no particular pathological history, noted to have a soft swelling mass in the right side of the neck first appeared at the age of 4 years old. The clinical examination objectified a no-pulsatile soft mass, which increased in size during crying straining during bowel movements or the Valsalva maneuver. A cervical CT angiography confirmed the diagnosis of right internal jugular vein phlebectasia without complications. A regular follow-up was advised.

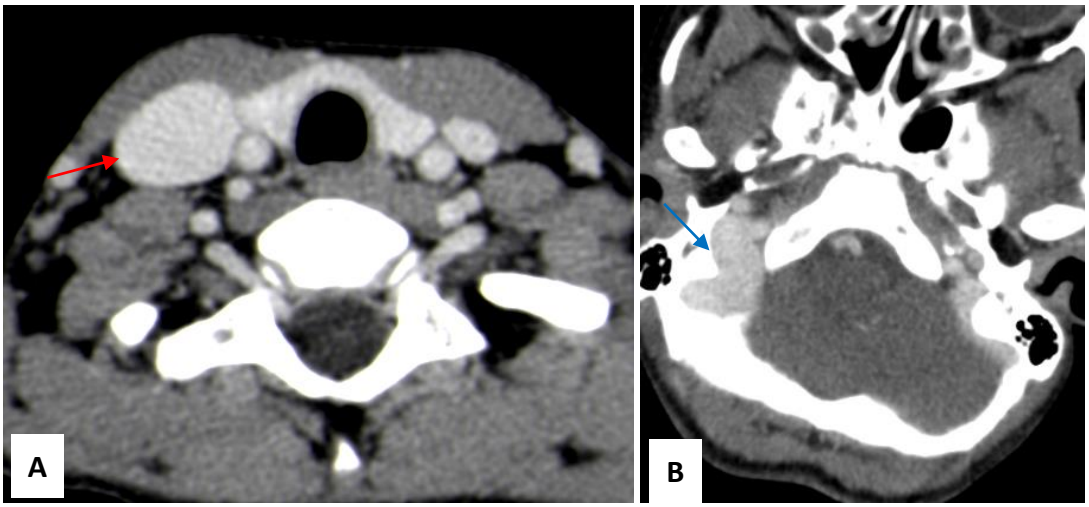

Figure 1(a) (b): Reconstruction sagittal

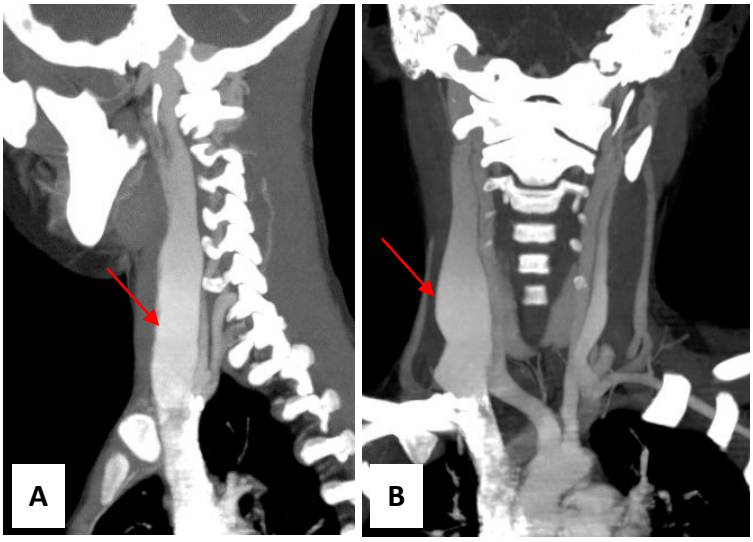

Figure 2: (a) Coronal (b) with MIP (maximum intensity projection)

DISCUSSION

Congenital dilation of the internal jugular vein occurs as a result of the jugular sinus expanding. The causes of this expansion are multifactorial. It can be attributed to increased pressure in the superior vena cava system during inspiration, or to the specific arrangement of venous valves within the superior vena cava system, as well as structural abnormalities in the vessel walls. Moreover, various anatomical factors contribute to increased pressure in the right brachiocephalic vein compared to the left, which explains the frequent involvement of the right internal jugular vein.

The patient's clinical presentation includes cervical pain and a sensation of cervical heaviness. Upon physical examination, there is evidence of a lateral cervical mass with a fluid consistency. The mass is non-pulsatile and has been present since childhood, gradually increasing in size with the Valsalva maneuver [1, 2, 3].

Imaging confirms the diagnosis of ectasia: ultrasound coupled to the Doppler reveals a fusiforme aneurismatic formation in the internal jugular vein during the Valsalva maneuver. The CT angiography can confirm the diagnosis showing the veinous dilatation. It's important to note that in both approaches, the patient's active participation during the examination is crucial to generate the necessary effort, thereby allowing the detection of venous dilation through an increase in intra-thoracic pressure. Without performing the Valsalva maneuver, the examination cannot confirm the suspicion.

The differential diagnosis includes non-pulsatile masses found in the neck, such as laryngocele, superior mediastinal cysts, tumors, and hypertrophy of the pulmonary apex. Complications are uncommon and include rare occurrences of thrombosis [4,5] and Horner's syndrome [7]. The primary concern is primarily cosmetic, and there have been no reported cases of rupture in the literature.

The treatment approach is primarily determined by the presence or absence of complications. If there is compression of vascular structures, infections, thrombosis, or rupture of the dilation, surgical intervention is necessary. This typically involves resecting the dilated segment or covering it with a muscular segment, often using the omohyoid muscle, which provides compression and toning to the flattened areas. However, in bilateral cases, the resection of both dilations is contraindicated due to the risk of cerebral edema [8, 6]. In the majority of cases, however, where the condition is asymptomatic and primarily causes aesthetic concerns, conservative management is usually preferred by the attending physician.

CONCLUSION

Congenital ectasia of the internal jugular vein is rare. Management requires imaging to confirm the diagnosis. Long-term follow-up is recommended. Surgery will only be discussed in case of complications.

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