

# Collateral circulation in the obstruction of the superior vena cava flow

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To cite this article: J. Ovelar, J. Cédola & J. Merino (2021) Collateral circulation in the obstruction of the superior vena cava flow, *Annals of Medicine*, 53:sup1, S88-S89, DOI: [10.1080/07853890.2021.1897447](https://doi.org/10.1080/07853890.2021.1897447)

To link to this article: <https://doi.org/10.1080/07853890.2021.1897447>



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Published online: 28 Sep 2021.



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mastication efficiency. Statistical procedures were performed using IBM® SPSS® Statistics – Version 24 and Microsoft® Excel for Mac – Version 16.15.

**Results:** Twenty-six of the selected patients were women and mean age was  $38.86 \pm 17.5$  years old. In all cases a single side TMJ was treated – 14 left and 16 right. MRI had shown anterior disc displacement (ADD) with complete reduction on opening in 15 patients, without reduction in 9 and with partial reduction in 6. Results show an improvement in pain, both at rest and in function, MMO and mastication efficiency at a statistically significant level, up to 12 months post-operative. The procedure was considered well tolerated (mean Likert:  $3.15 \pm 1.13$ ) and no adverse events were reported.

**Discussion and conclusions:** ALLV is a safe, well tolerated and cost-effective minimally invasive procedure, which proves to reduce pain and functional impairment up to 12 months post-operative, with little or no complications [6,7].

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DOI: 10.1080/07853890.2021.1897446

## Collateral circulation in the obstruction of the superior vena cava flow

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### ABSTRACT

**Introduction:** By means of virtual reconstructions obtained from the data provided by the different Multislice Computed Venotomographies (MCVT) [1–3] performed in our institution during the period from 2015 to date, a total of 14 patients with different pathologies (oncological, venous thrombosis by port-a-cath catheter, etc.) were evaluated, which showed signs of obstruction of the superior vena cava and collateral circulation.

The aim is demonstrating a venous shunt pattern in cases of Superior Vena Cava obstruction by virtual representation of the collateral circulation in acute or chronic stage.

**Materials and methods:** Sixty-four detector Phillips Multislice tomograph and process the data using IntelliSpace Portal (specialized Phillips software).

**Results:** The collateral circulation network chosen depended mainly on whether or not the Azygous vein was compromised and the time of evolution of the obstruction [4].

From this, it is possible delimit two circuits: an anterior collateral drainage and a posterior collateral drainage. The posterior circuit is presented principally in acute cases, with the indemnity of the root of the Azygous Vein and through the intercostal veins, vertebral plexuses, the Azygos system, Hemi-azygous, and accessory.

Whereas, the anterior circuit is mainly presented by the obstruction of the Superior Vena Cava and the Azygous too, or in chronic situations of obstruction of the SVC [5], either by means of anterior thoracic collateral, middle and/or lateral, that through superficial or deep venous tributaries return the venous flow to the central circulation by the Inferior Vena Cava.

**Discussion and conclusions:** The knowledge of the venous anatomy, through virtual representations, allow to understand the collateral circulation and its patterns in cases of obstruction of the Superior Vena Cava [6].

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DOI: 10.1080/07853890.2021.1897447

## Identification of potentially inappropriate medications with risk of major adverse cardio- and cerebrovascular events among elderly patients

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### ABSTRACT

**Introduction:** Elderly patients pose challenge in clinical practice. Multimorbidity, polypharmacy, and potentially inappropriate medications (PIMs) are a reality among these patients, and can increase the risk of adverse drugs reactions [1]. However, data on the prevalence of PIMs with risk of Major Adverse Cardio- and Cerebrovascular Events (MACCE) in secondary care is scarce. Our aim was to evaluate the prevalence of such PIMs in a Portuguese hospital and to identify the most common pharmacotherapeutic groups involved.

**Materials and methods:** A cross-sectional study was undertaken in a Portuguese hospital in Beja in the last three months. Patients aged 65 or older with previous cardiovascular disease (considered as ischaemic and haemorrhagic stroke, transient ischaemic attack, and heart failure), and with at least three home medications were included. Data was extracted from medical charts, which included sociodemographic, clinical, and pharmacotherapeutic variables. PIMs with risk of MACCE were identified using a current systematic review. The prevalence of PIMs was defined as the number of elderly patients with medications included in the PIM-list among all the patients included. The informed consent of the subjects and acceptance of the study protocol by a local ethics committee has been obtained. Data analysis was performed using univariate statistics (IBM SPSS v.20.0).

**Results:** A total of 322 elderly patients were included, where 50.9% ( $n = 164$ ) were female with a mean age of  $78.8 \pm 10.8$  years old. Almost half of the sample presented previous history of cerebrovascular events (47.8%,  $n = 154$ ), followed by heart failure (41.9%,  $n = 135$ ). Patients presented an average of  $3.9 \pm 2.3$  comorbidities per patient and 75.2% ( $n = 242$ ) experienced polypharmacy (defined as the patient taking 5 or more drugs). Each patient was taking a mean of  $6.9 \pm 3.6$  drugs. Thirty nine percent ( $n = 125$ ) of the patients were using PIMs with cardio- and cerebrovascular adverse events, and 23.2% ( $n = 29$ ) of them presented MACCE risk. The most common pharmacotherapeutic group was Non-Steroidal Anti-inflammatory Drugs (NSAIDs) (51.7%,  $n = 15$ ), followed by calcium channel blockers (17.2%,  $n = 5$ ).

**Discussion and conclusions:** Data suggest that almost 40% of the patients were using PIMs with cardio- and cerebrovascular risk and had previous history of cardiovascular diseases. This may suggest that at discharge and during transitions of care, patients would benefit from a medication review.

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DOI: 10.1080/07853890.2021.1897448