



Angioplasty of Central Venous Occlusion using Coronary Chronic Total Occlusion Devices

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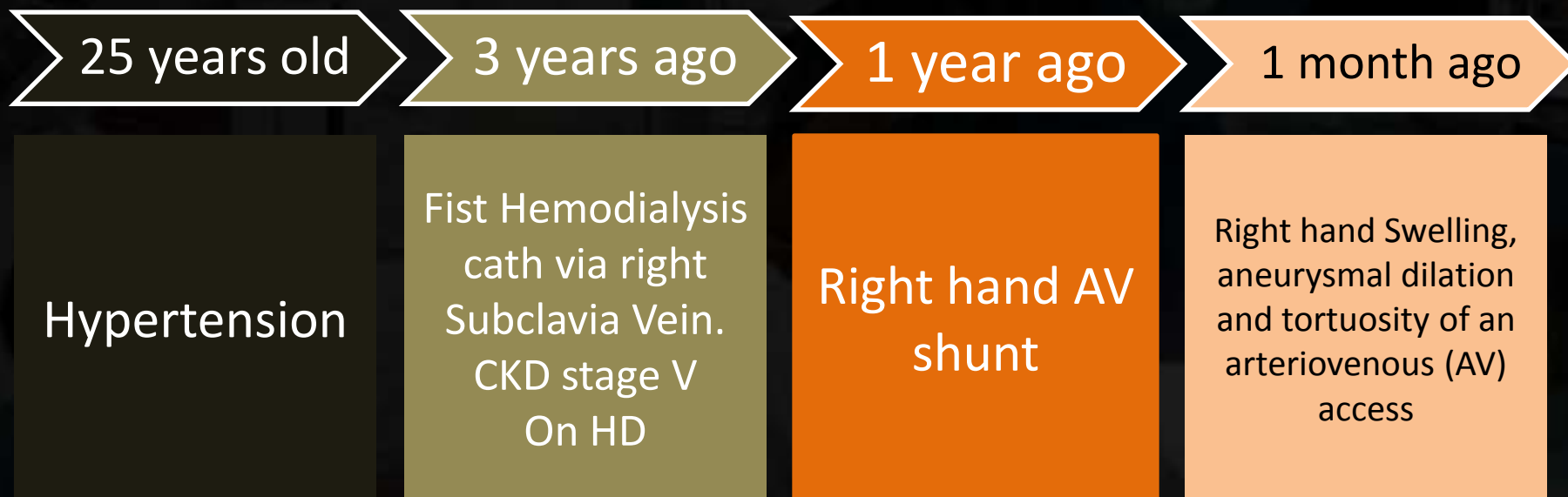
Background



- Significant stenosis or occlusion of the subclavian vein is known to occur in 14% to 36% of patients within 1–2 years of catheter placement
- Incidence of stenosis in patients with a history of subclavian catheters of 42 to 50% compared to 10% with internal jugular vein catheters (up to 27 months after the removal of the last catheter)
- Increase in the use of indwelling central venous catheter and cardiac pace maker leading to increase prevalence of central vein stenosis



- Mrs. S., 74 years old
- Right Arm swelling since 1 month prior to admission
- Risk factor: Hypertension (no HTN treatment)





- Composmentis
- BP 120/80mmHg; HR 88bpm; Rr 20x/min; sat 97%
- Chest wall venous collaterals
- Right hand swelling with superficial varicosities of basilic and cephalic veins, warm acral, no sign of arterial obstruction

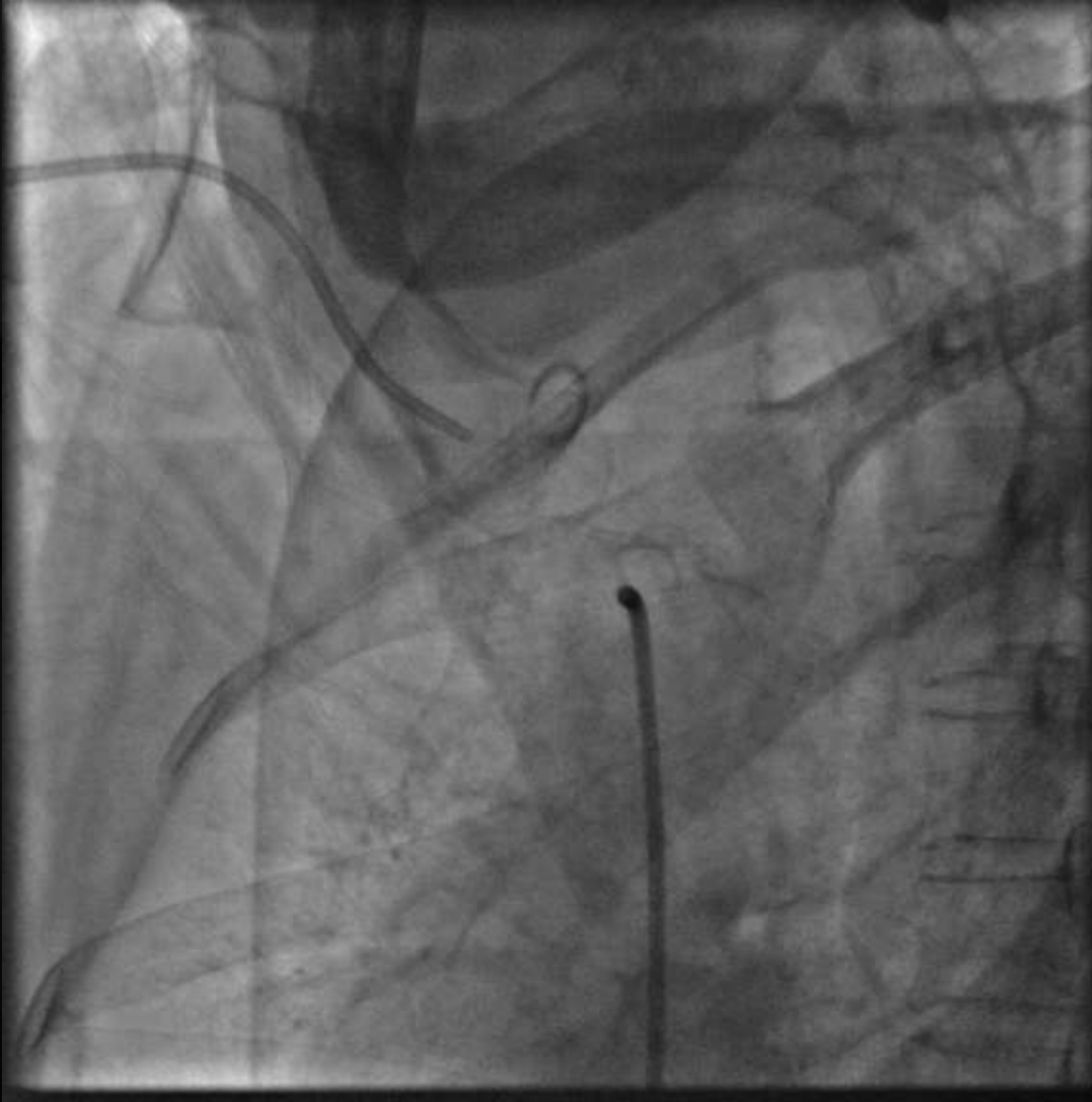




Lab	value	Normal Value	
Leucocytes	7070	3.500-10.000	/ μ L
Hb	13,3	11-16.5	g/dl
Thrombocytes	212.000	150-390.10 ³	μ /L
PCV	41,8	35-50	%
RBS	130	<200	mg/dl
Ureum	48,6	10-50	mg/dl
Creatinine	5,23	0,7-1.5	mg/dl
SGOT	11	11-41	U/L
SGPT	11	10-41	U/L
PPT	9.2	11-15	sec
aPTT	24.7	27-35	sec
INR	0.79	0.8-1.2	

TCTAP 2015

Total Occlusion of Right Subclavian Vein



MPA 1 6F via
Basilic Vein

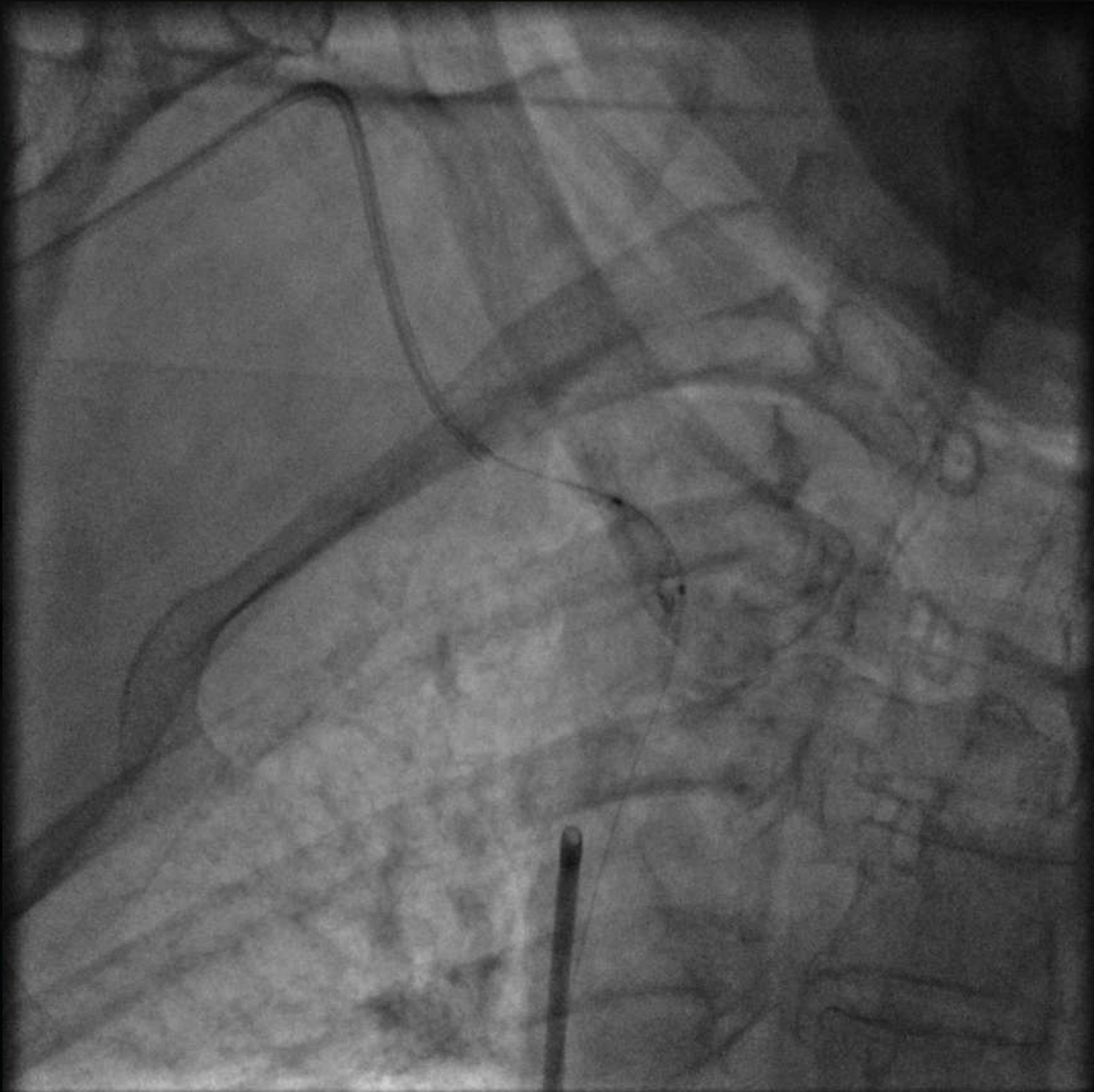
JR 3.5 6F via
Dextra Femoralis
Vein

A grayscale fluoroscopic image showing a catheter system in a patient's body. The catheter is clearly visible as a dark line against the lighter, textured background of the internal structures. It appears to be positioned in a large vessel, possibly the aorta or a major branch, with some side branches also visible.

pilot GW
150→200
Finecross
Mirocatheter
MPA catheter




1.5 x 12mm Minitrek Balloon
Max 14 atm., 10 sec.



4.5x15 NC
sapphire
Balloon
14 atm., 3 min.

6x30mm Foxcross Balloon
8 atm., 3 min.
GW Supracore 35 Hi-Torque

A grayscale fluoroscopic image showing a curved, mesh-like stent structure within a blood vessel. The stent is positioned in a curved section of the vessel, and its individual struts are clearly visible against the lighter background of the vessel lumen.

10x39 mm Omlink
Elite Stent
12 atm., 12 sec.
GW Supracore 35
Hi-Torque



Final Result

Pre-Treatment



Post-Treatment



Discussion



- The K/DOQI guidelines recommend PTA, with or without stent placement as the preferred treatment approach to CV stenosis
- Comparing PTA vs. BMS : 3-, 6-, and 12-month primary patencies with PTA of 58%, 25%, and 29% vs. with BMS of 65%, 54%, and 45%.
- Surgical options are associated with significant morbidity in patients and are a second line treatment alternative in patients refractory to percutaneous endovascular treatment options.
- All the current treatment options for central venous occlusion are prone to recurrence requiring multiple repeat interventions to maintain patency

Conclusion



- Endovascular treatment with stenting for central venous stenosis is safe with low rate of technical failure