

Renal artery stenting in refractory Hypertension

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My Patient

- 70 yr old gentleman
- T2DM x 14 years well controlled on OHA
- Systemic HTN on 4 class of drugs
- History of worsening of RFT on ARB documented by his previous physician.
- Now presented with c/o persistently high BP.

- routine investigation unremarkable
- USG ABD & RENAL DOPPLER DONE - Normal
- More class of drugs added.

- Patient was on amlodipine 10 mg; CTD-12.5mg;Prazosin 10 mg;bisoprolol 10 mg; Hydralazine 200 mg;spironolactone 50 mg;moxonidine 0.3 mg
- BP still 170/100 mm Hg.
- 20 mg of olmesartan added
- worsening of RFT from 1.1 mg —> 1.8 mg/dl.

- ARB stopped
- Decided to repeat Renal Doppler.
- Renal function improved to 1.5 mg/dl

Repeat Renal Doppler

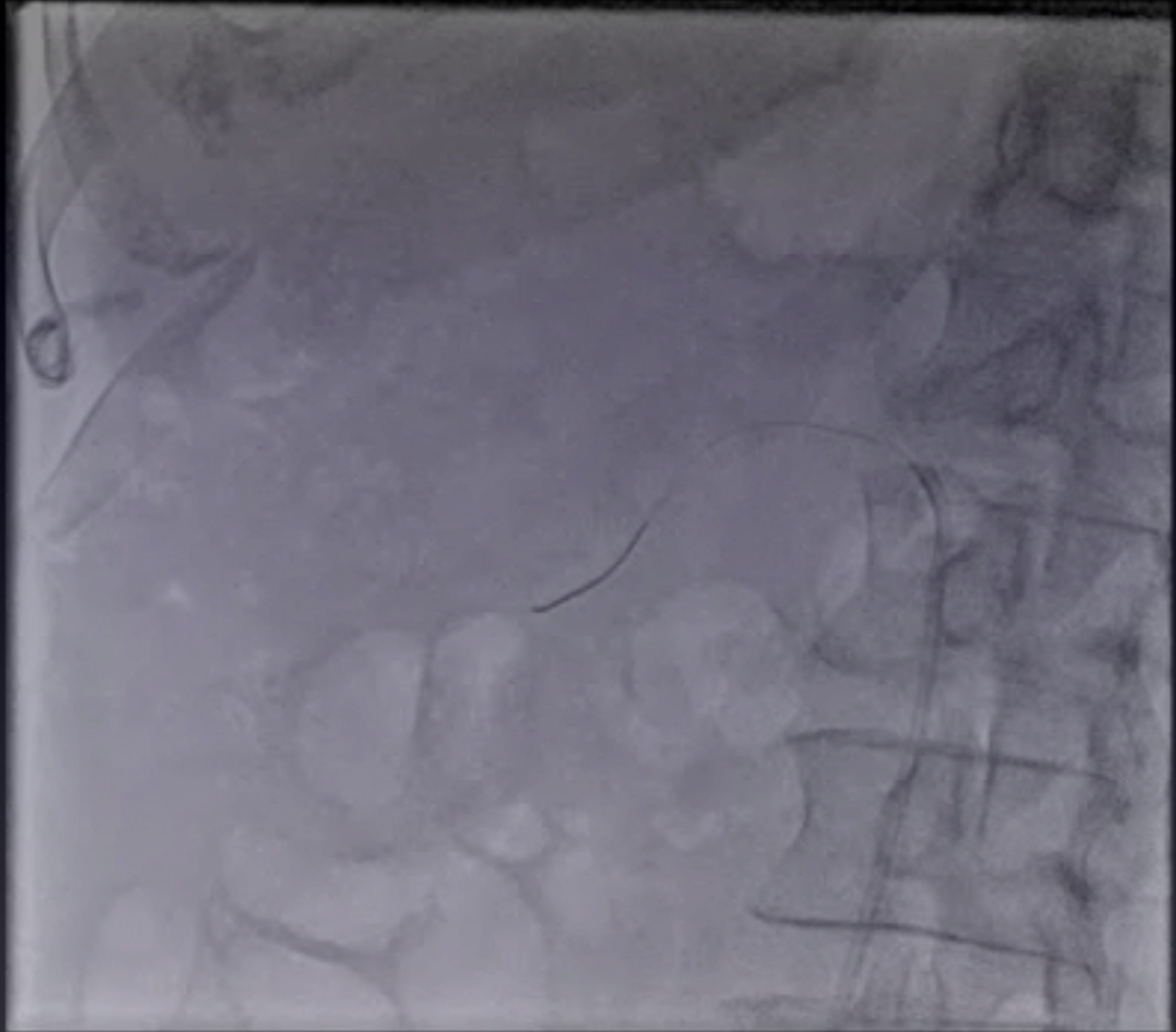
- Suggestive of b/l RAS
- CT-Aortogram confirmed -B/L RAS
- RRA-90%;LRA-80%
- Planned for bilateral renal artery stenting.

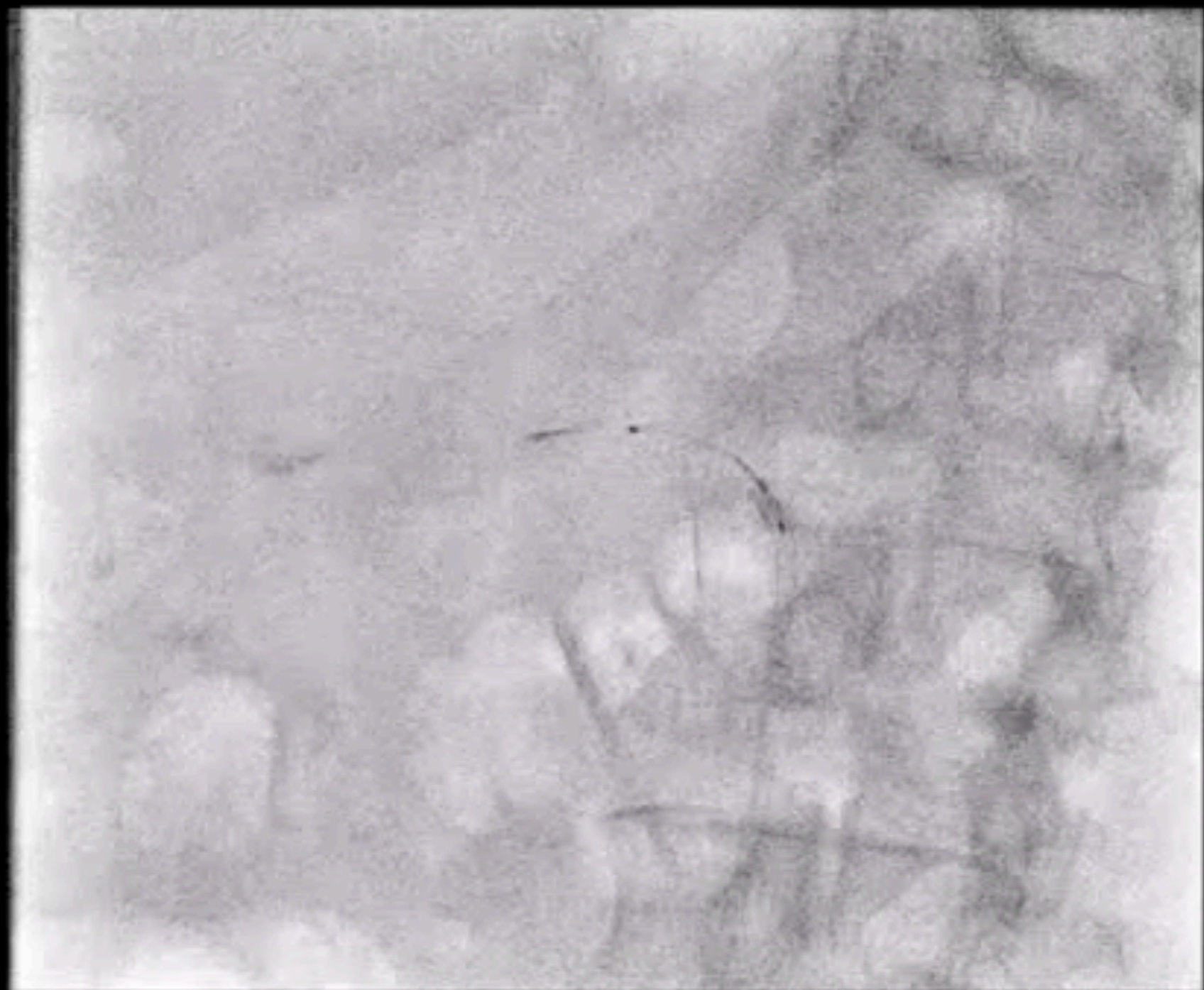
RAST

- RFA
- 7F JR4
- 0.014 Sion blue
- Plan: DPD—>predilation—>stenting.

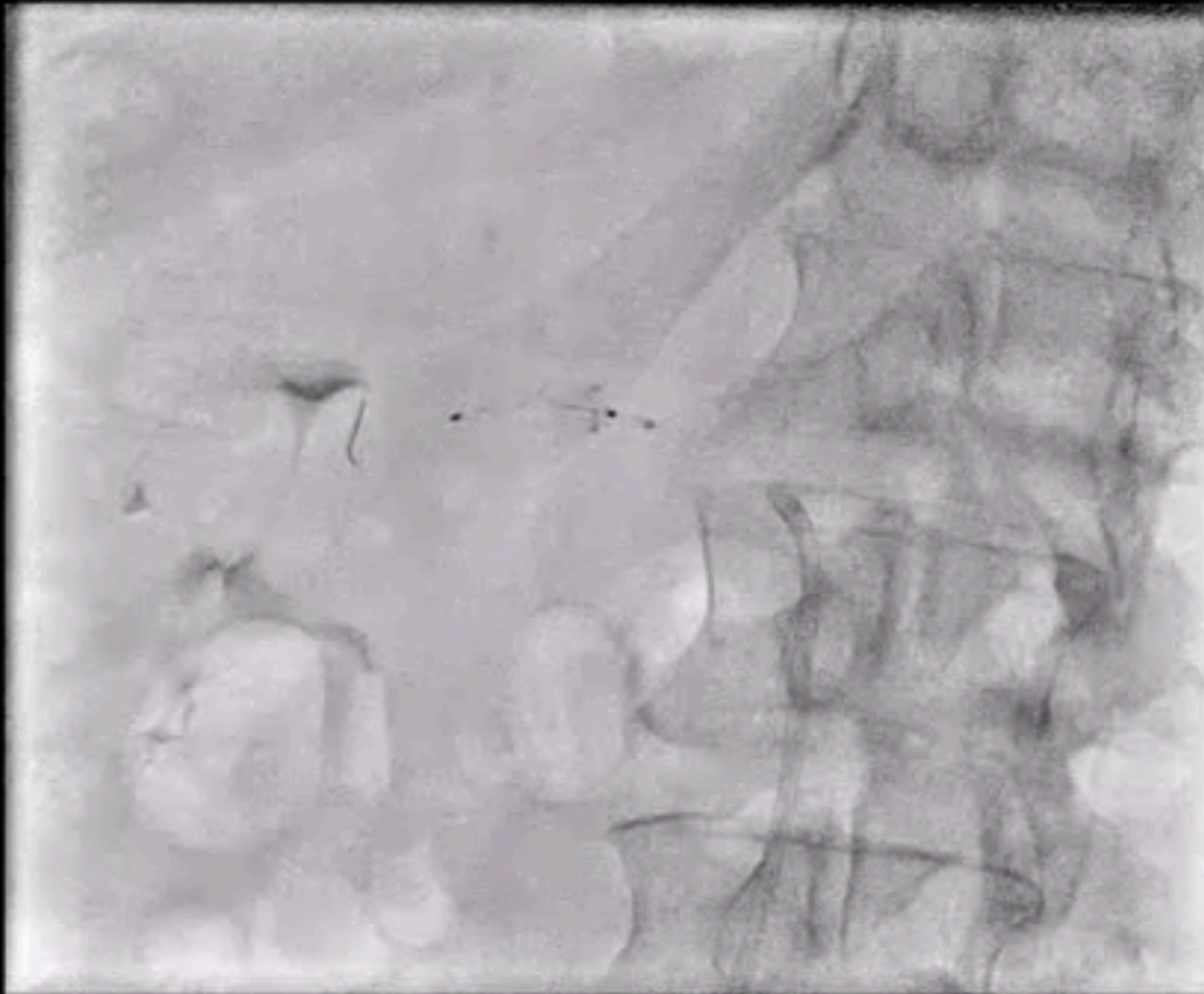
No Touch technique



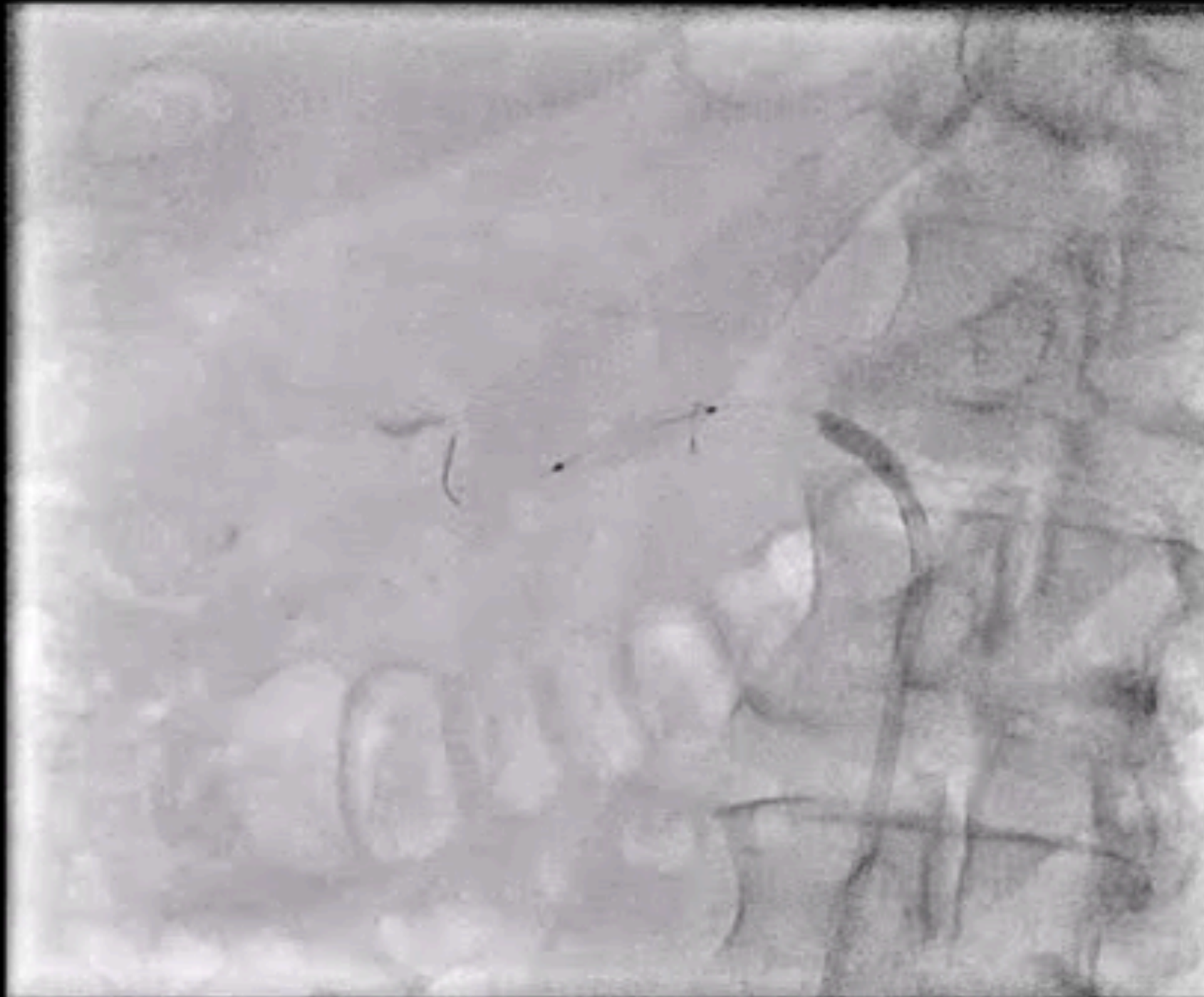




7mm Spider DPD

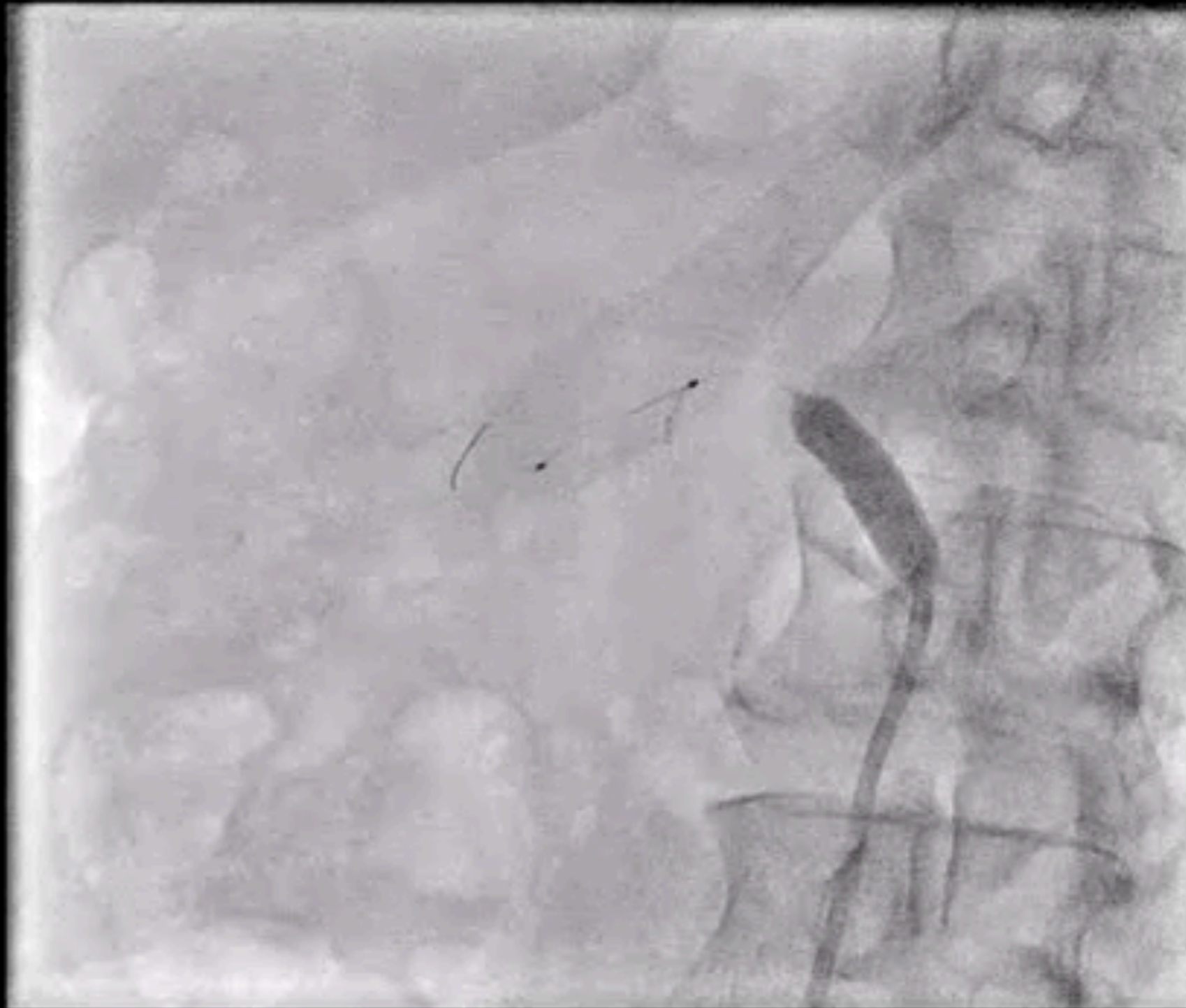


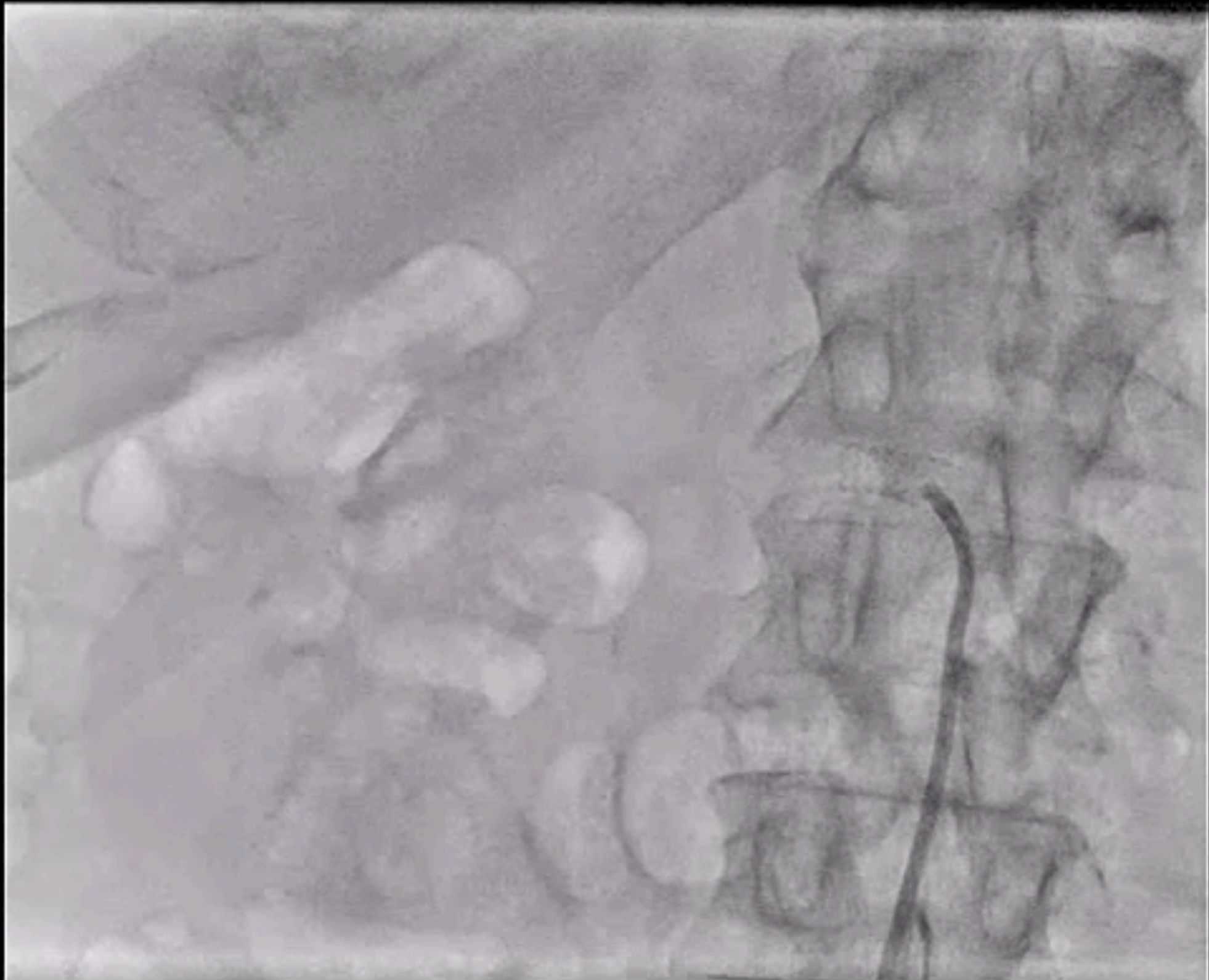
Predilatation with 3x12 NC balloon



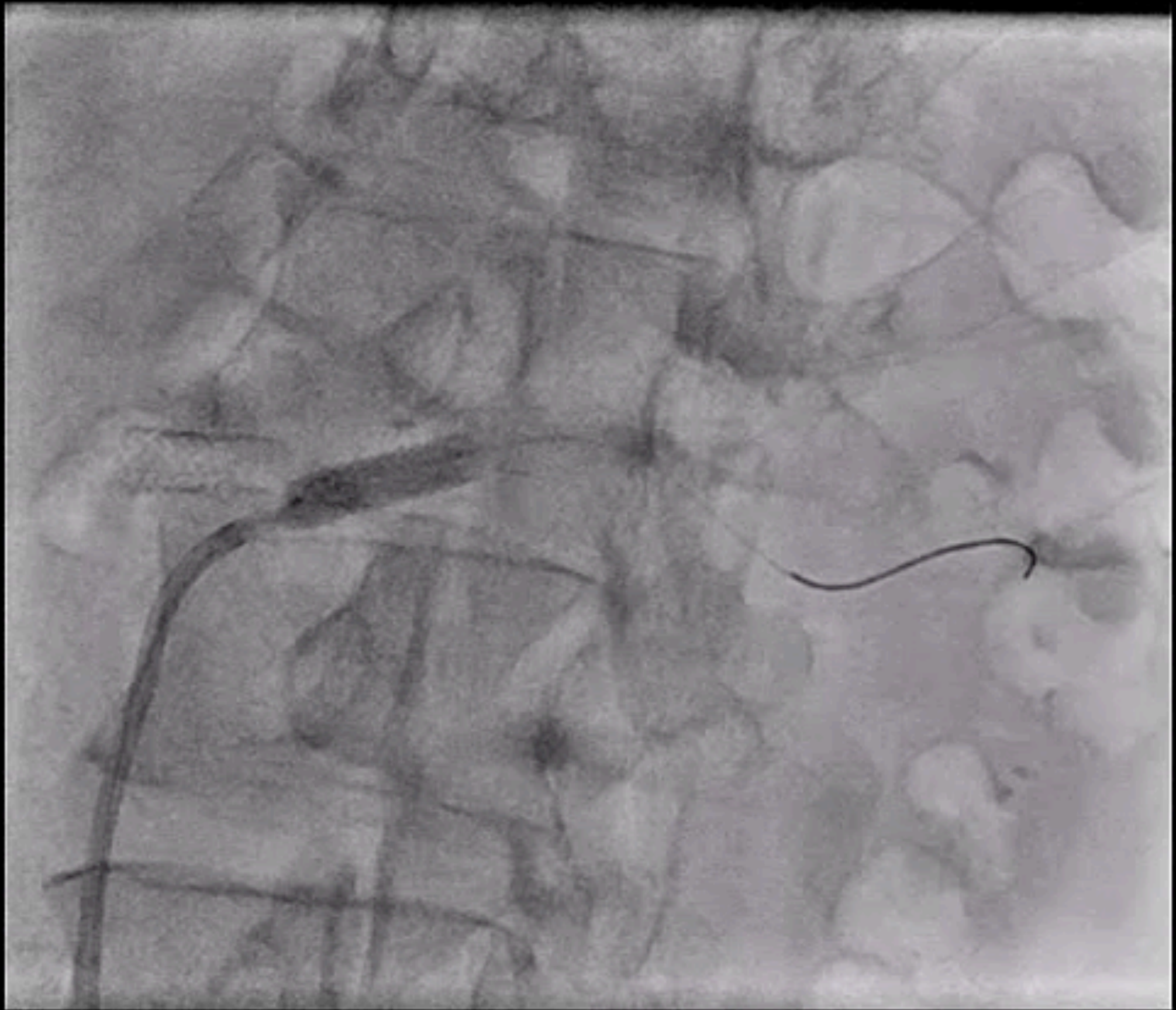


7x 15 Herculink Elite

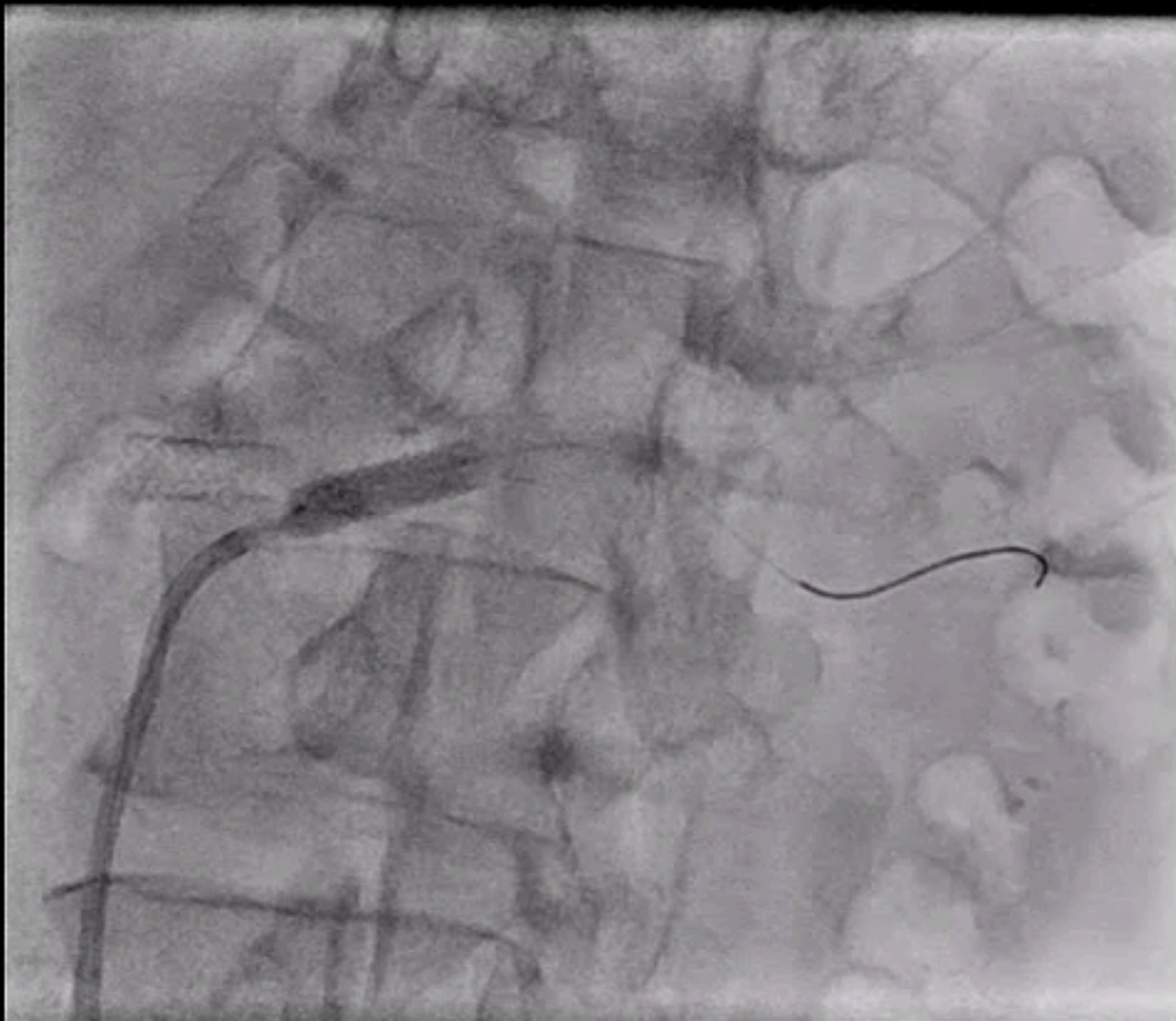


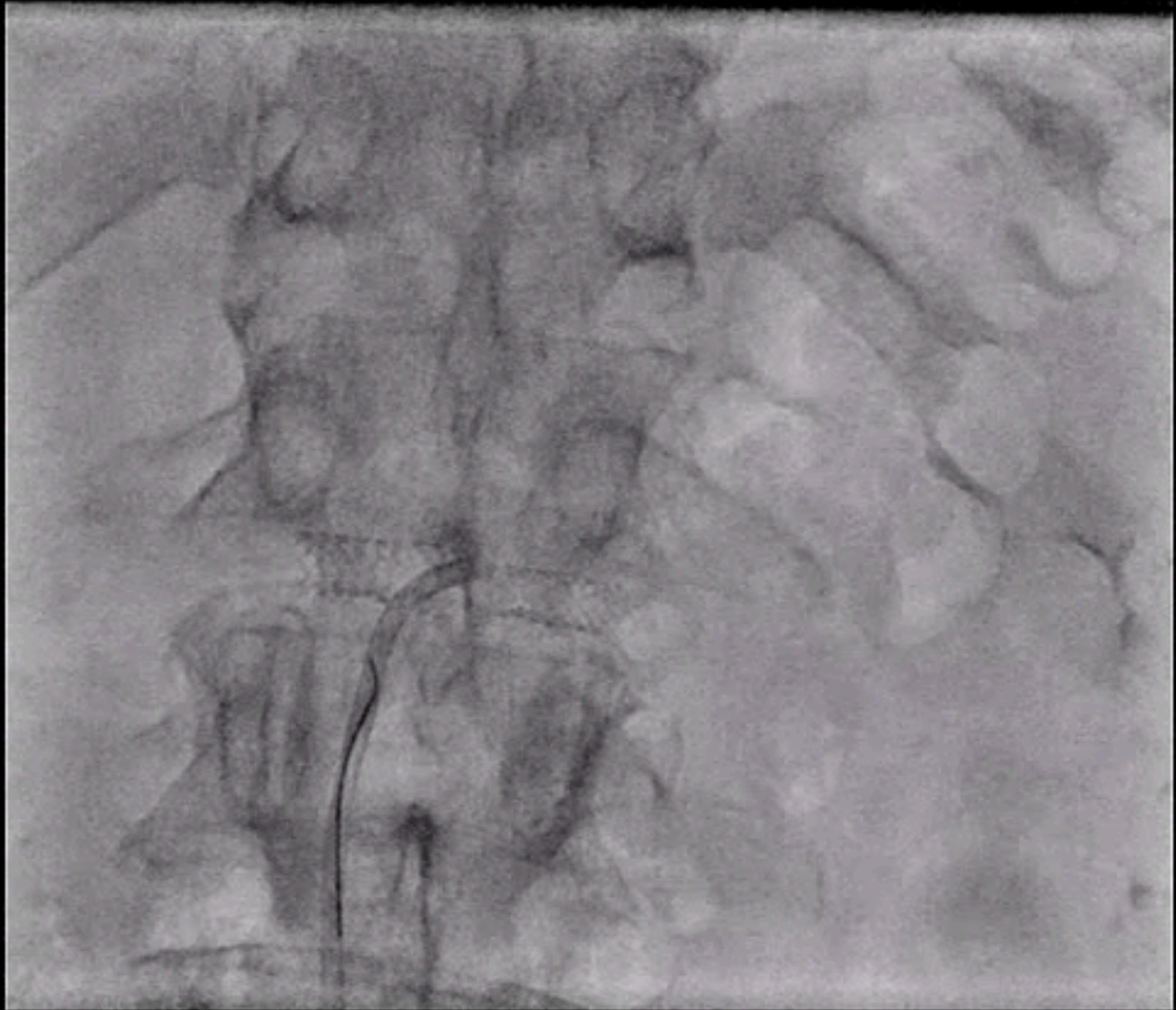






Direct stenting 6 x15 Herculink Elite





- Post procedure RFT showed improvement of renal parameters.
- Steady improvement in the RFT over next 6 months
- BP well controlled with Olmesartan 40 mg; amlodipine 5 mg and Bisoprolol 5 mg.

CR Name : MR. SOMANATHA PANICKER .
Requested Dr. : Dr. Praveen G K
P.NO. : IP/SUT/14-15/12/6667
Sample On : 25-12-2014 09:25 pm

CR No : SUT/140203485
Department : CARDIOLOGY
Report On : 25-12-2014 11:31 pm

Lab Test Report

<u>Name</u>	<u>Result</u>	<u>Biological Ref.Ra</u>
RENAL PROFILE II		
BLOOD UREA	<u>49</u>	15-40
SERUM CREATININE	<u>1.5</u>	0.6-1.2
SODIUM	<u>140</u>	135-150
POTASSIUM	<u>3.0</u>	3.5-5.3
HB	<u>10.0</u>	13-16

CR Name : MR. SOMANATHA PANICKER .
Requested Dr. : Dr. Praveen G K
Sample On : 01-01-2015 11:07 am

CR No : SUT/140203485
Department : CARDIOLOGY
Report On : 01-01-2015 12:10 pm

Age/Sex
OPD/IPD

Lab Test Report

<u>Name</u>	<u>Result</u>	<u>Biological Ref.Range</u>
RENAL PROFILE II		
BLOOD UREA	26	15-40
SERUM CREATININE	1.2	0.6-1.2
SODIUM	136	135-150
POTASSIUM	3.9	3.5-5.3
HB	<u>10.2</u>	13-16

Clinical Interpretation if any :

End of Report

CR Name : MR. SOMANATHA PANICKER .
Requested Dr. : Dr. Praveen G K
Sample On : 25-05-2015 09:52 am

CR No : SUT/140203485
Department : CARDIOLOGY
Report On : 25-05-2015 10:58 am

Age/Sex : 71 Y/Male
OPD/IPD : OPD

Lab Test Report

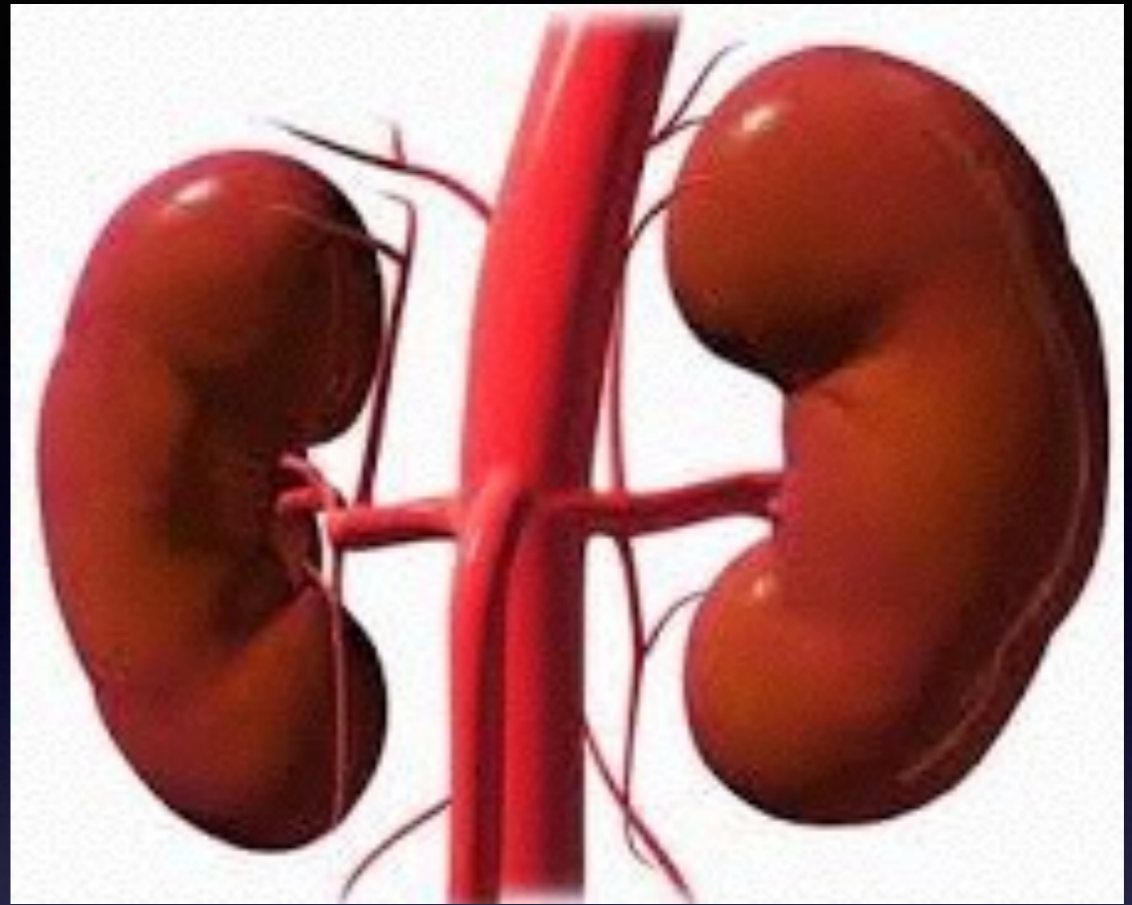
<u>Name</u>	<u>Result</u>	<u>Biological Ref.Range</u>	<u>Unit</u>
RENAL PROFILE II			
BLOOD UREA	37	15-40	mg/dl
SERUM CREATININE	1.0	0.6-1.2	mg/dl
SODIUM	137	135-150	mmol/L
POTASSIUM	4.3	3.5-5.3	mmol/L
HB	<u>11.0</u>	13-16	gm/dl

Clinical Interpretation if any :

-- End of Report --

key points

- Renal artery stenting beneficial in certain subset of patients.
- Use of EPD have been shown to be beneficial in ARAS.
- RESIST trial the only RCT - DPD used along with Abciximab.
- Technical difficulties are more common while using DPD in RAST.



Thank You