



Kronik Total Oklüzyonda ÇKBT ve IVUS

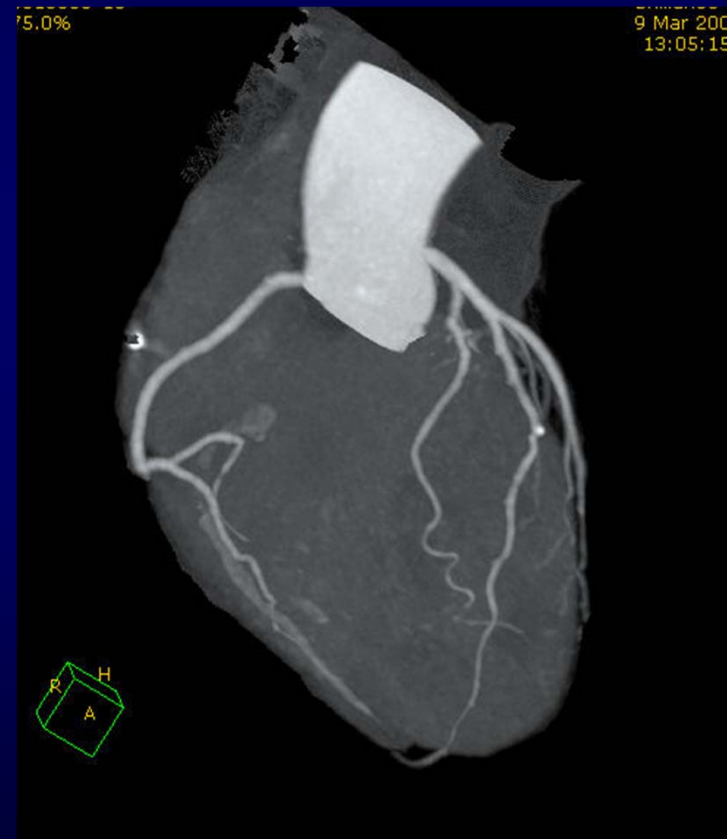
Prof. Dr.Muzaffer Değertekin

Yeditepe Üniversitesi Hastanesi

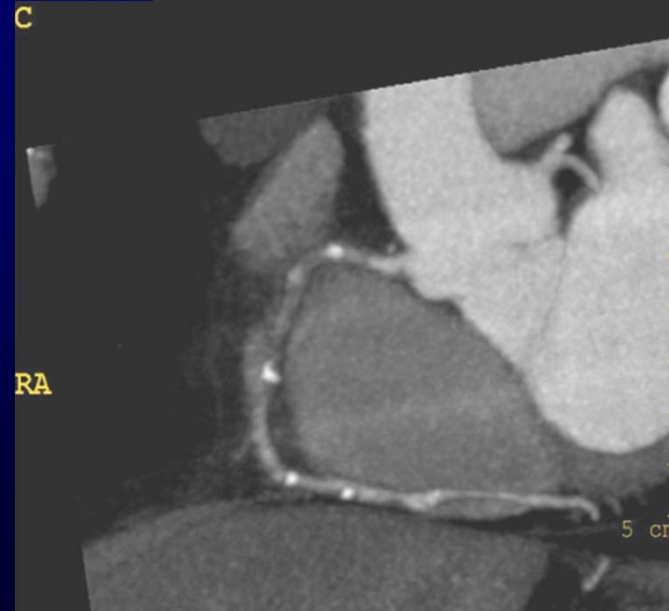
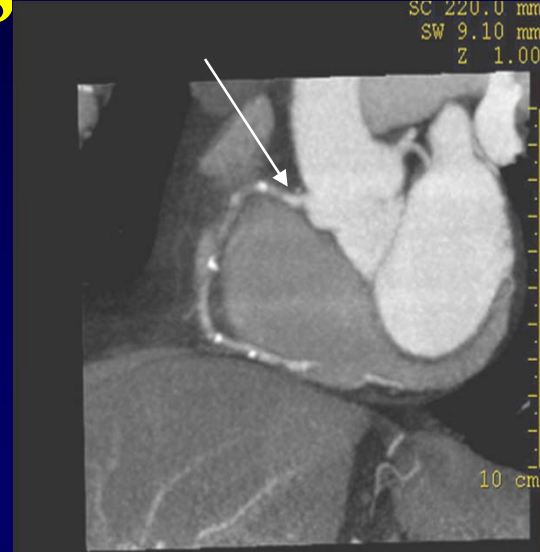
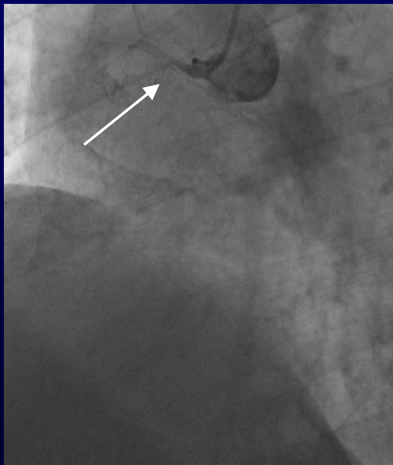
CTO Kulübü Toplantısı

10. Ekim.2010

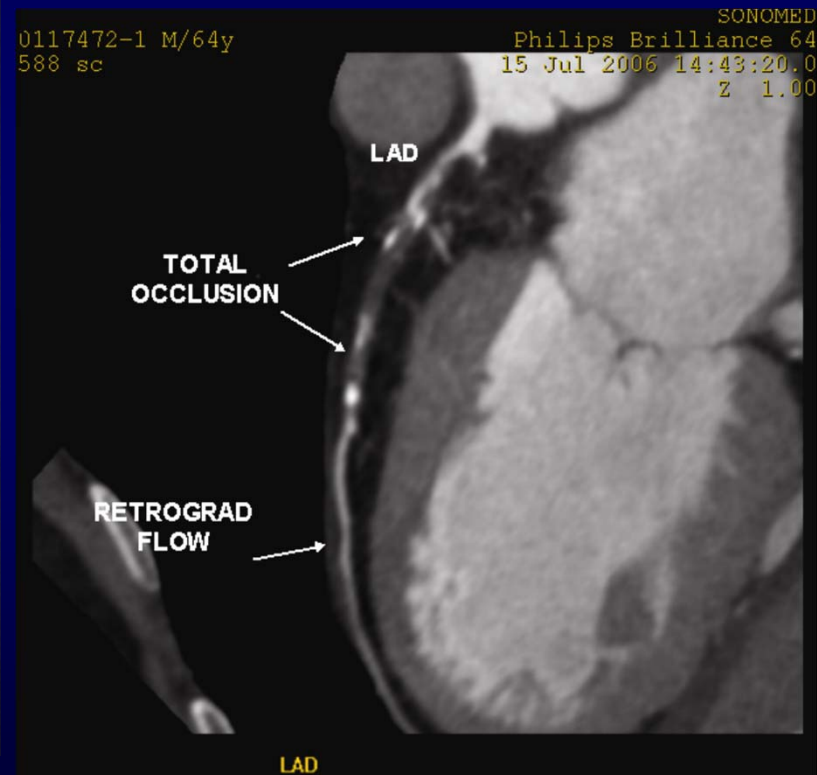
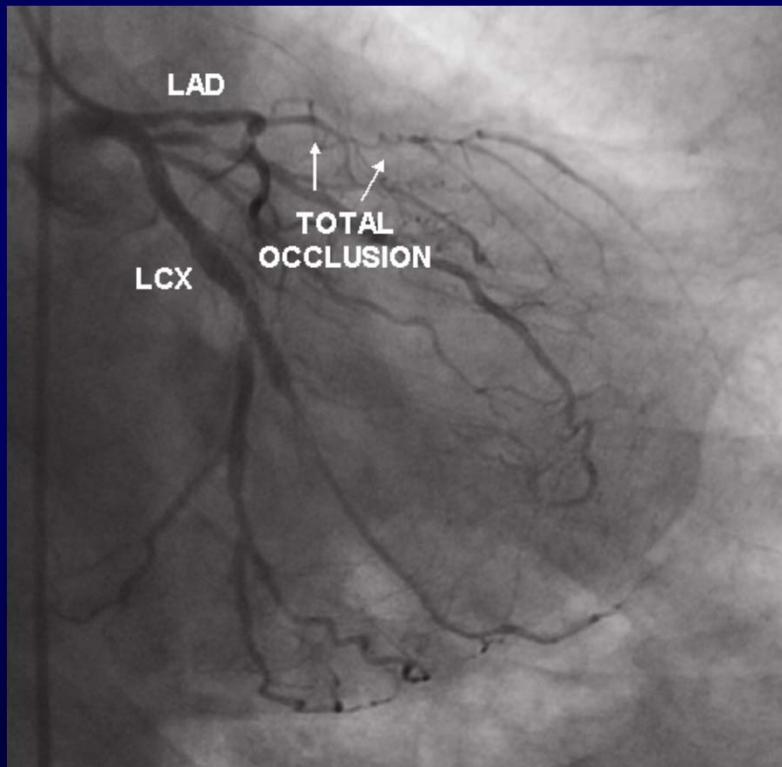
ÇKBT-Normal Koroner Arterler



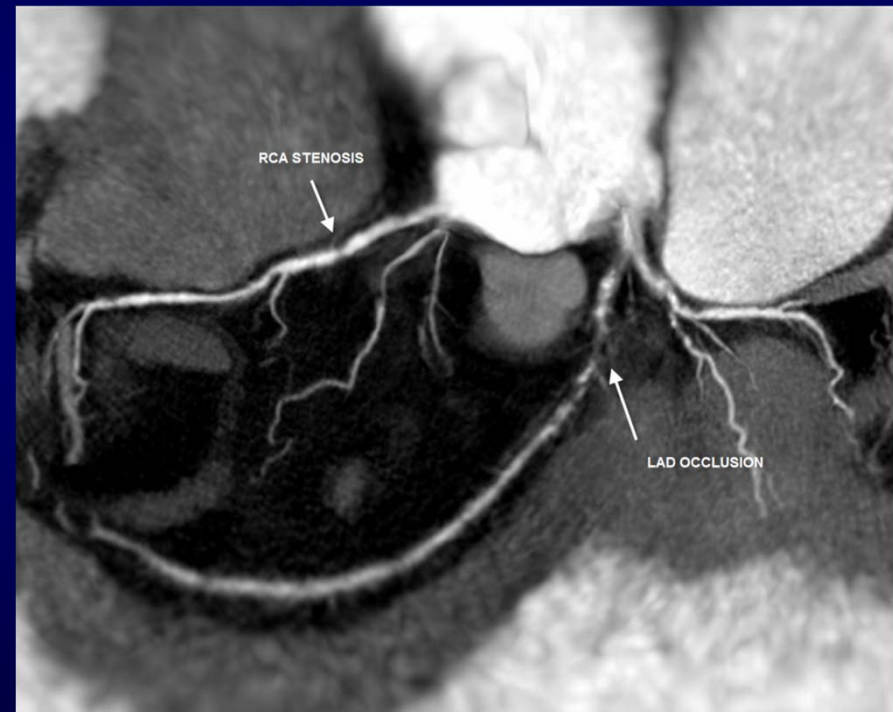
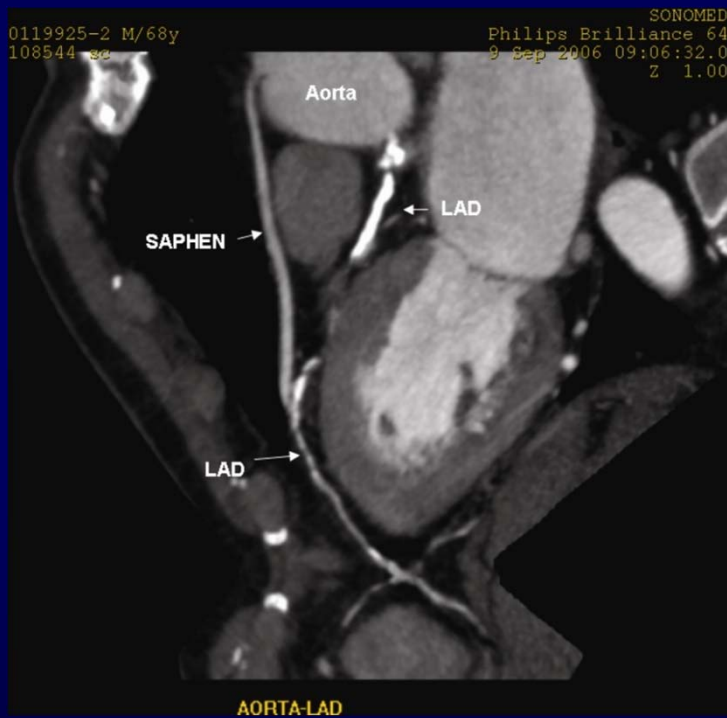
RCA OKLÜZYON – RETROGRAD DOLUŞ



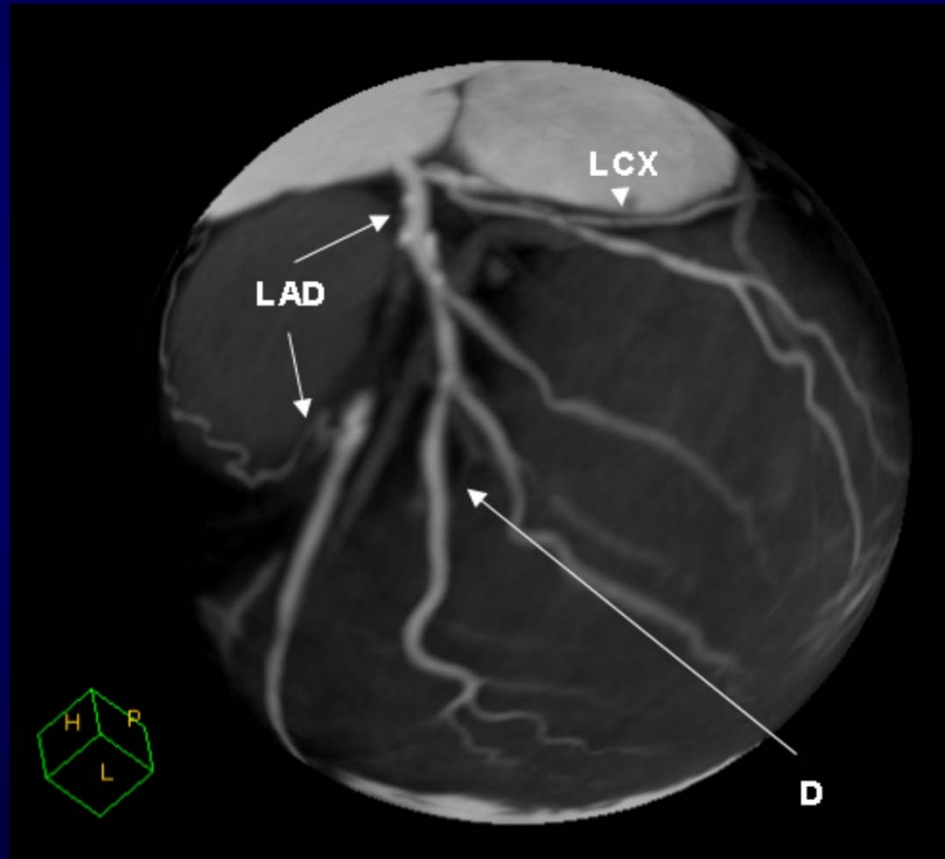
Total Oklüzyon ve ÇKBT



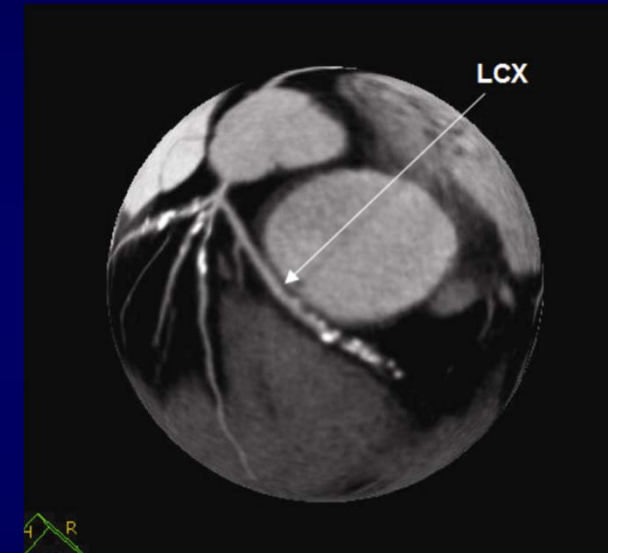
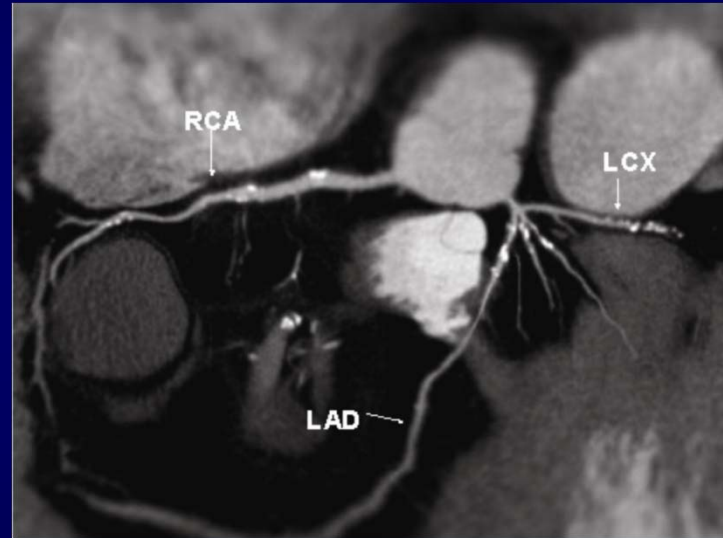
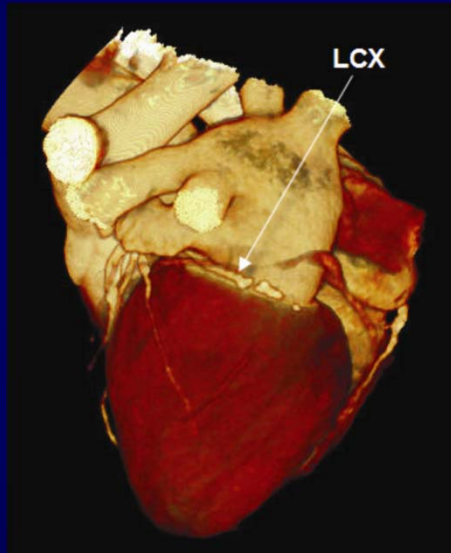
Total Oklüzyon ÇKBT



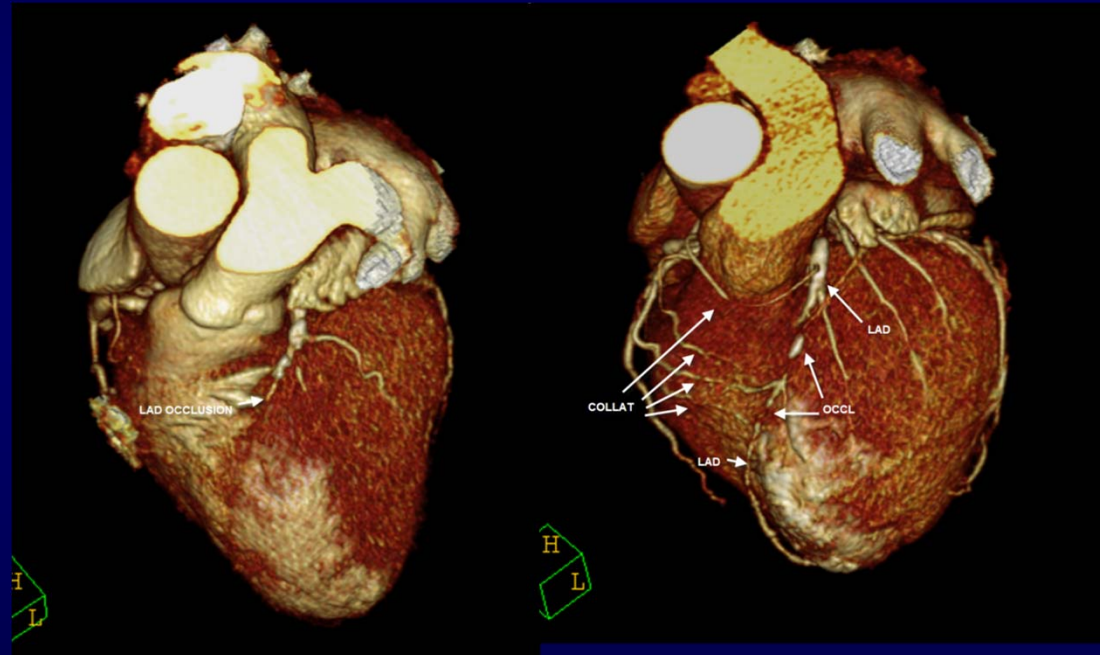
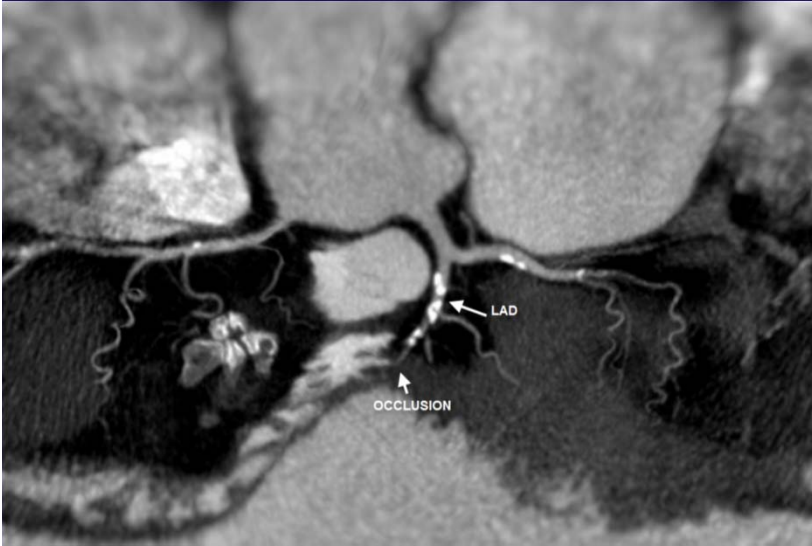
ÇKBT- KORONER ARTER OKLÜZYONLARI



Distal Akım Olmayan Total Oklüzyon



Total Oklüzyon ve Myokardiyal Doku



Kronik total oklüzyonlar

Value of Preprocedure Multislice Computed Tomographic Coronary Angiography to Predict the Outcome of Percutaneous Recanalization of Chronic Total Occlusions

TABLE 3 Angiographic and MSCT Coronary Angiographic Multivariate Prognostic Factors for Successful Recanalization of Chronic Total Occlusion

Variable	Coefficient	Wald's Chi-square	DF	p Value
Clinical/angiographic predictors				
Occlusion duration >9 mo	1.27	3.30	1	0.07
Tapered stump	-1.93	7.46	1	<0.01
Constant	0.24	0.13	1	0.7
MSCT coronary angiography predictors				
Occlusion length >15 mm	1.86	5.21	1	0.02
Severe calcification	2.49	6.51	1	0.01
Stump morphology	—	5.63	2	0.06
Blunt	1 (reference)	—	—	—
Tapered	-2.19	5.23	1	0.02
Not determinable	-2.65	3.46	1	0.06
Constant	-0.45	0.26	1	0.6
Clinical/angiographic + MSCT coronary angiographic predictors				
Tapered stump*	-2.43	7.98	1	<0.01
Occlusion length >15 mm	2.17	6.16	1	0.01
Severe calcification	2.03	5.18	1	0.02
Constant	-0.67	0.74	1	0.4

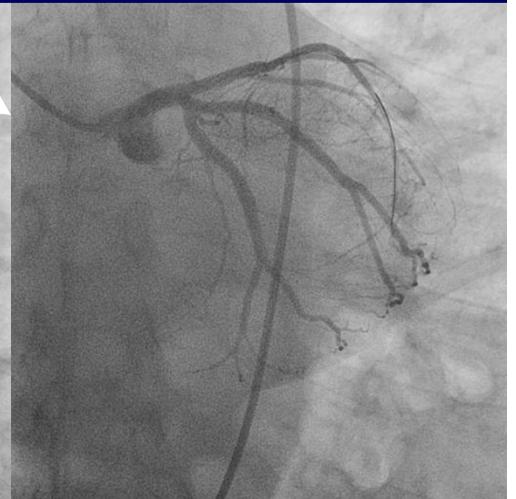
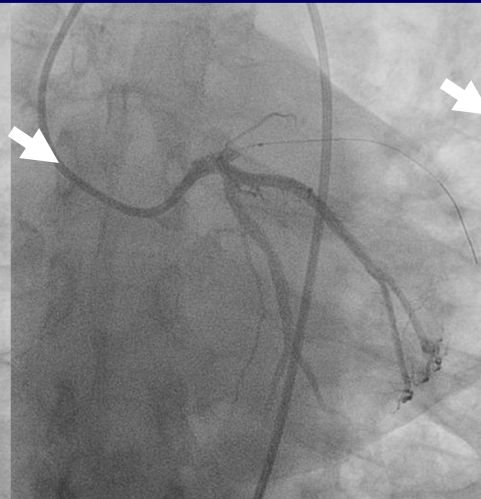
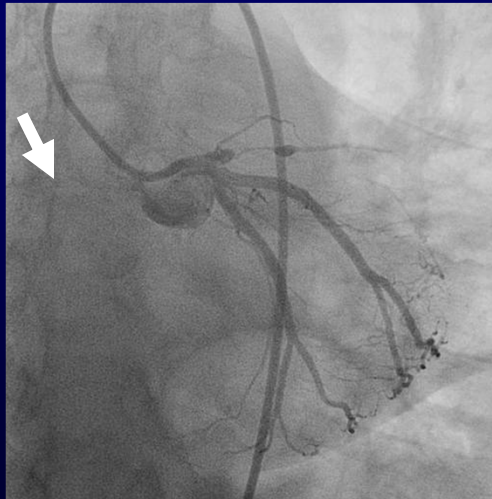
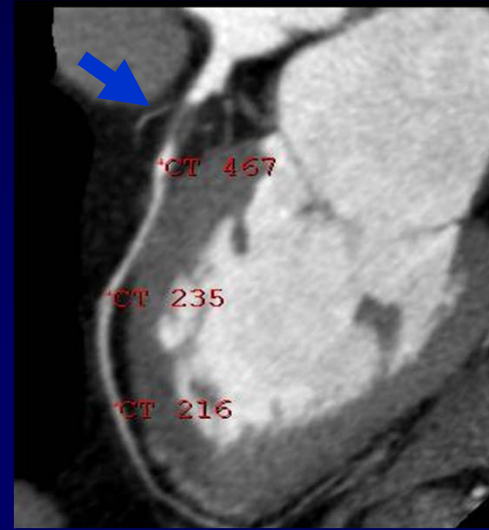
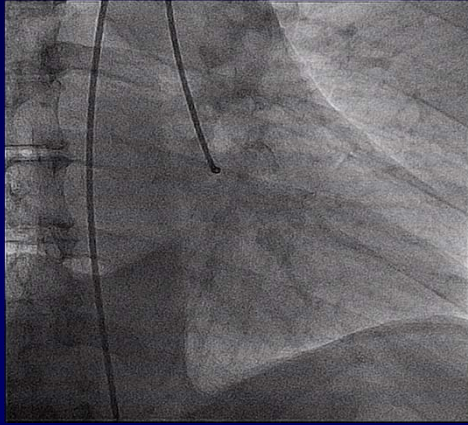
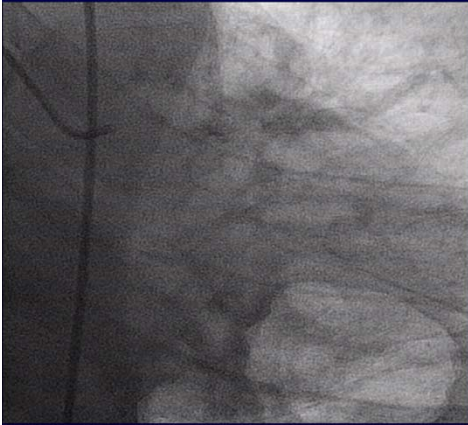
*A -2 log-likelihood change in the global model if 1 variable is removed: tapered stump calcification -6.6 (p = 0.01 for change).

DF = degrees of freedom; other abbreviations as in Table 2.

Mollet et al, AJ

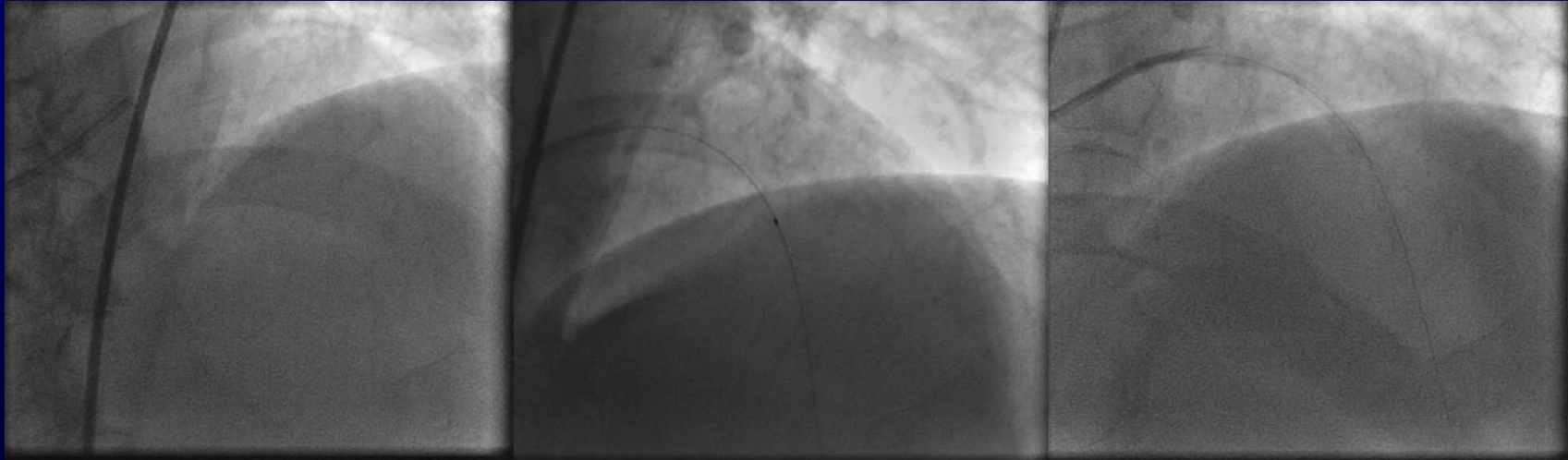
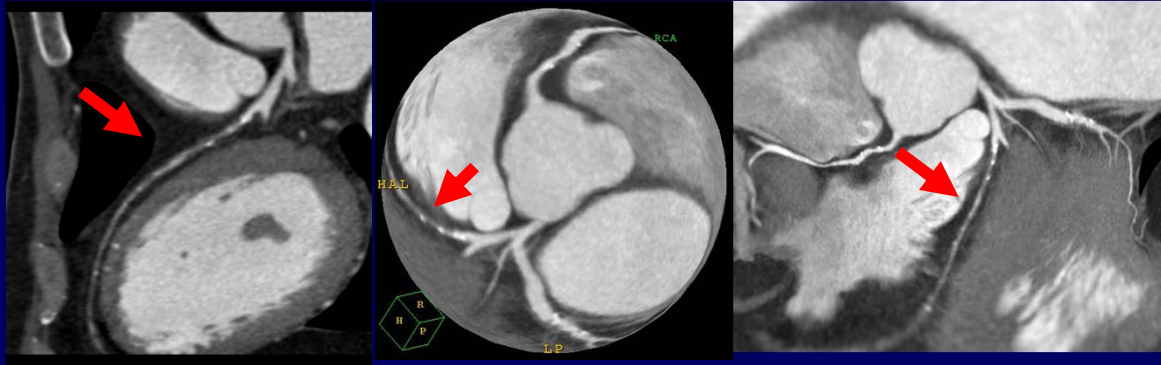


Kronik total oklüzyonlar



Kronik total oklüzyonlar

Çok kesitli BT anjiyografi: LAD total oklüzyonu



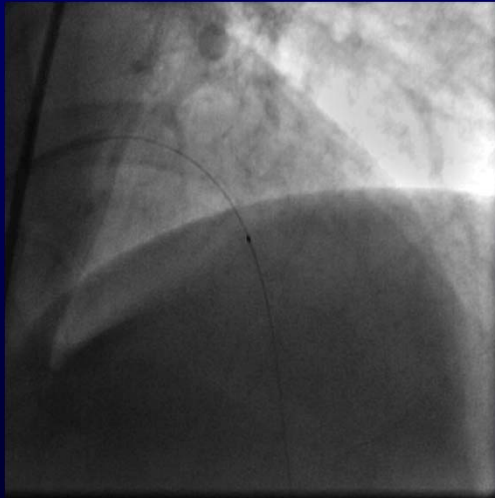
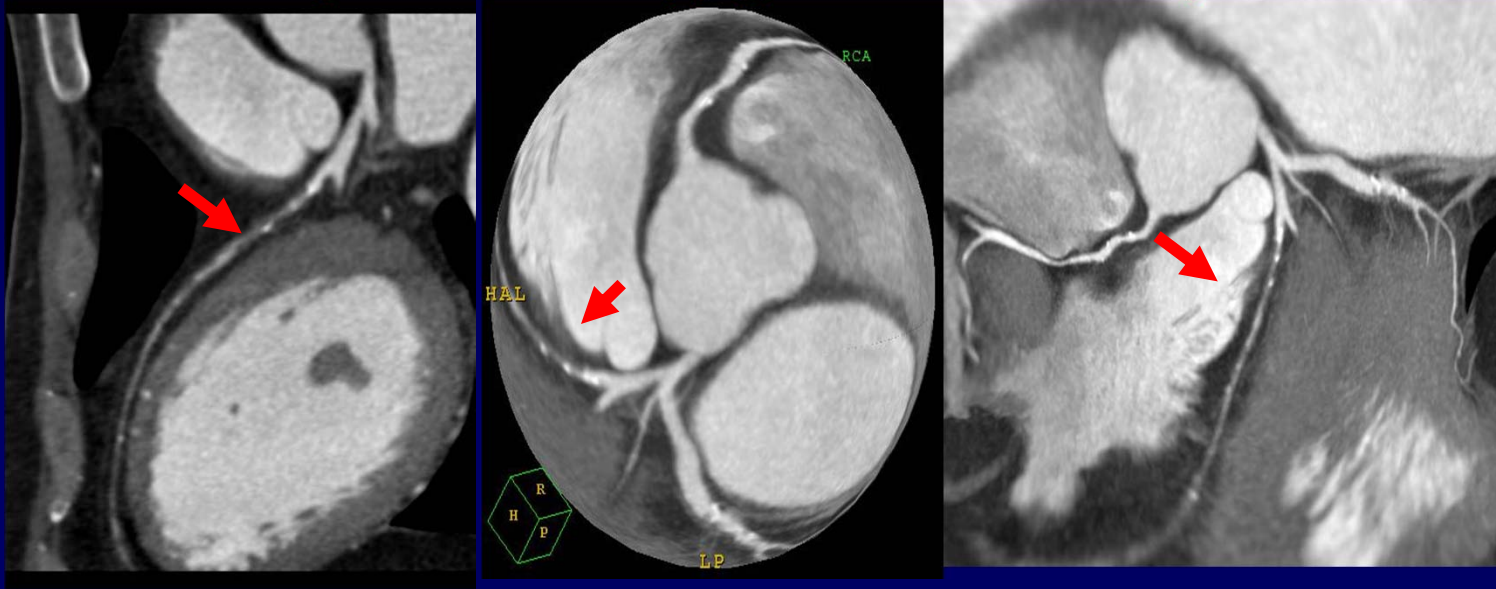
İşlem öncesi

PTCA öncesi

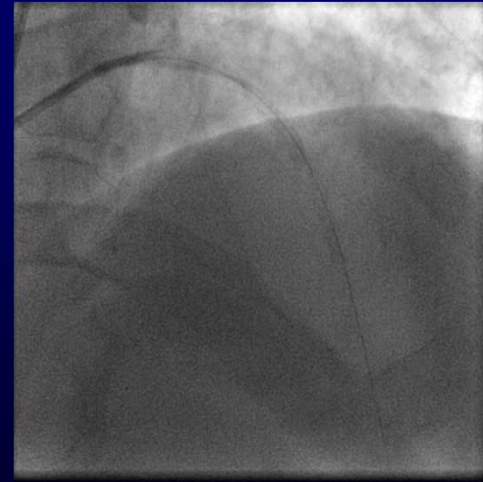
2 adet stent sonrası

Kronik total oklüzyonlar

Çok kesitli BT anjiyografi: LAD total oklüzyonu

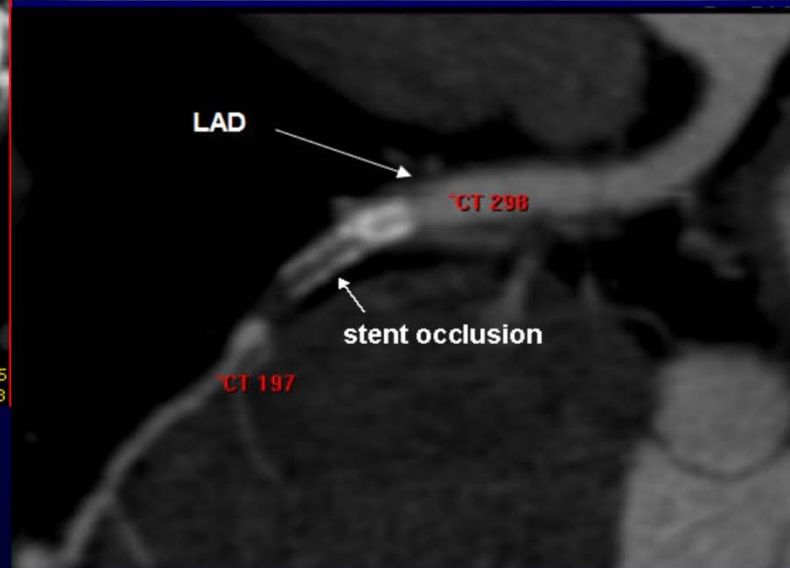
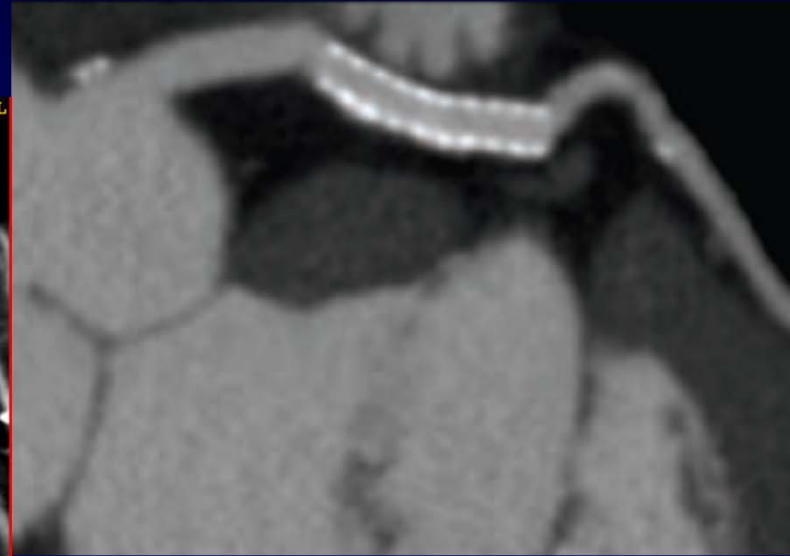
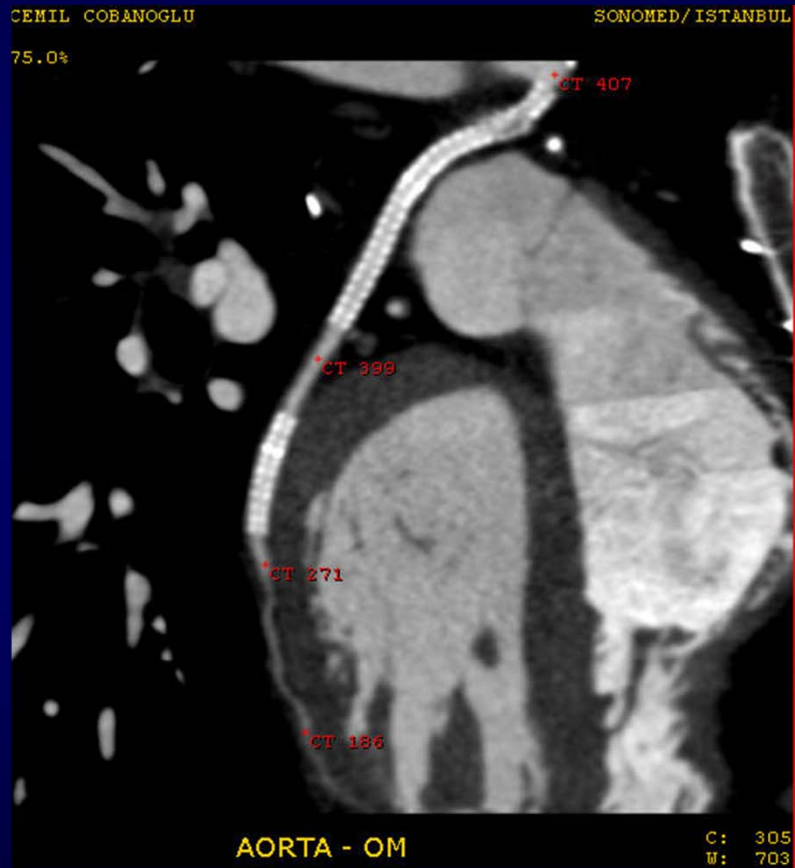


PTCA sonrası



2 adet stent 3.0x32 ve 3.0x28 sonrası

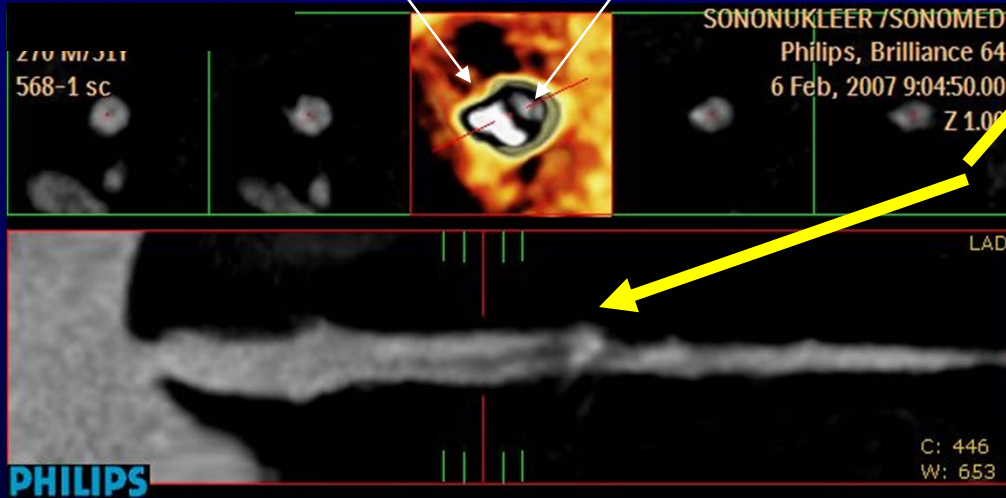
Total Oklüzyon ve Stent



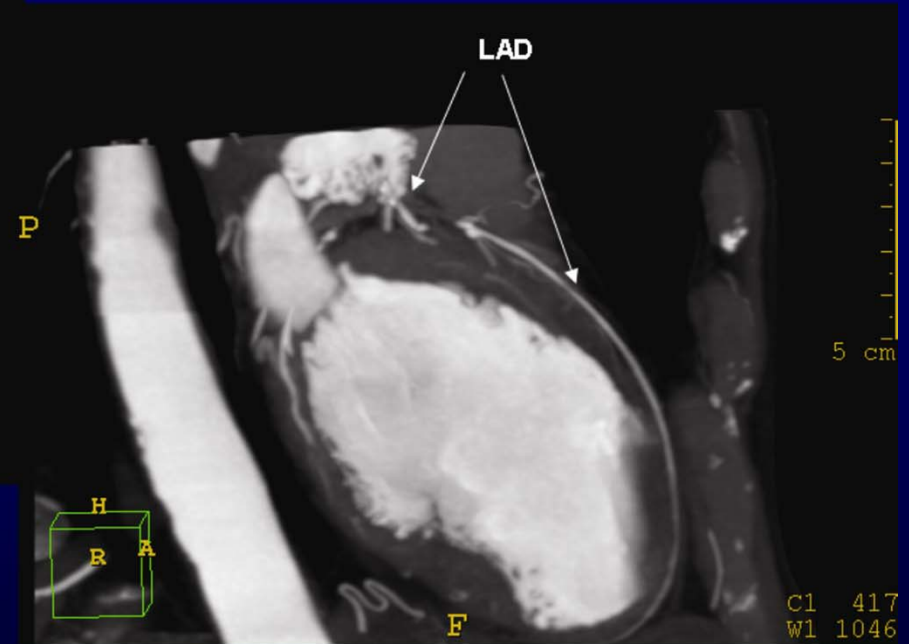
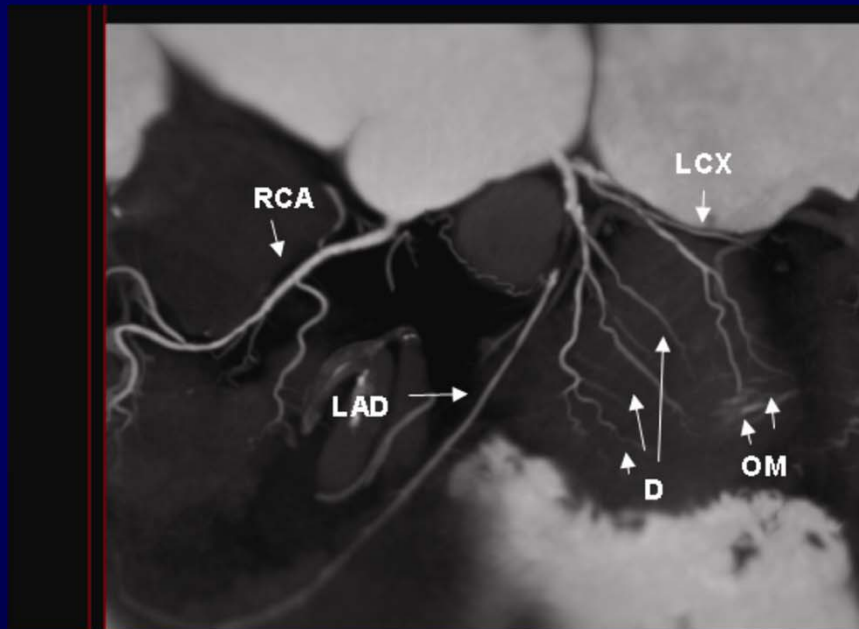
Diseksiyonlu koroner plak

Gerçek lümen

Yalancı lümen



Total Oklüzyon ve ÇKBT



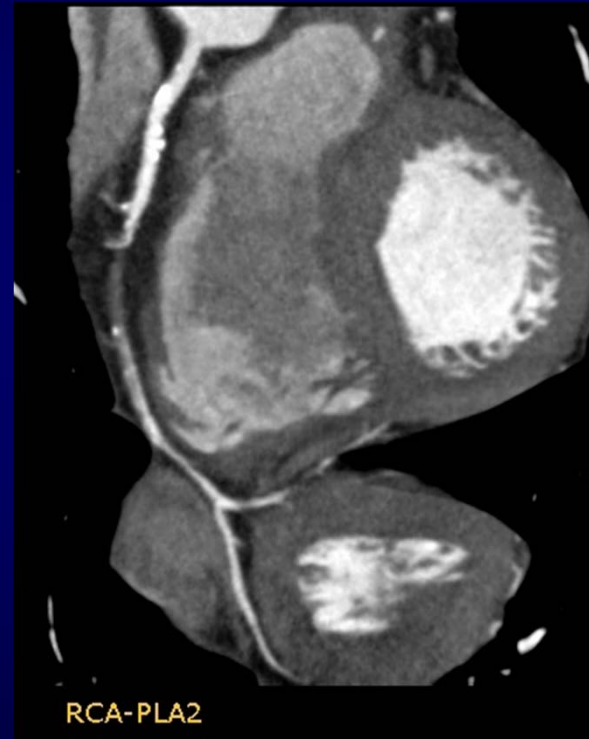
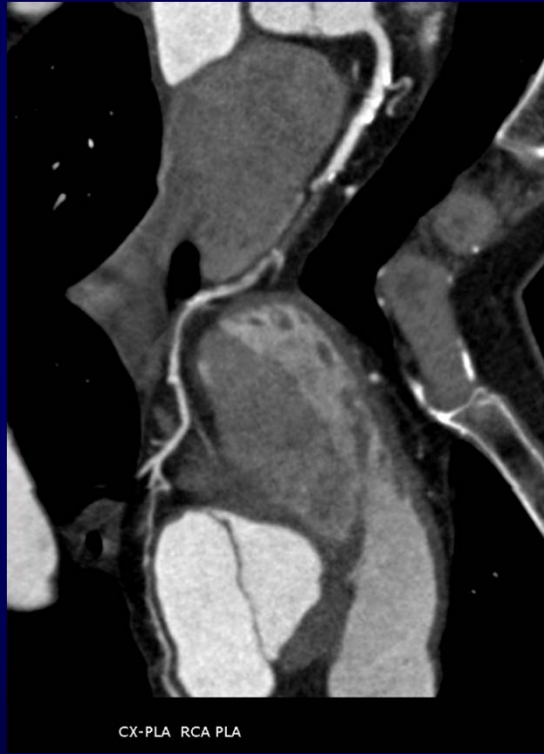
ÇKBT anjiyografinin PKG planlamasına ve işlem güvenliğine etkisi

Coronary Arterial Plaque Characterized by Multislice Computed Tomography Predicts Complications Following Coronary Intervention

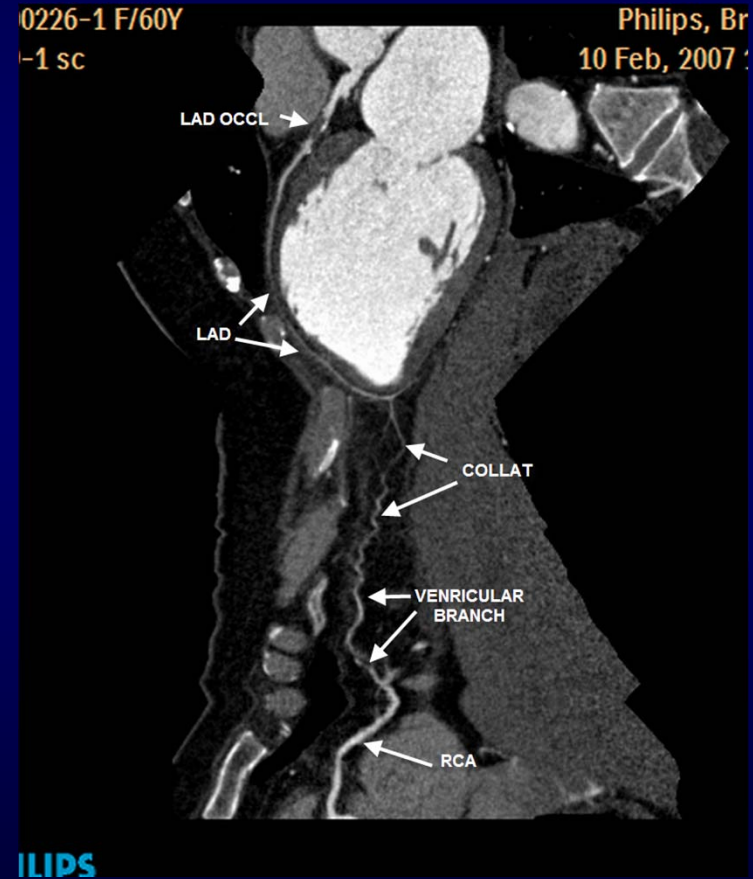
Yukihiko KINOHIRA,¹ MD, Yasushi AKUTSU,^{1,2} MD, Hui-Ling LI,^{1,3} MD, Yuji HAMAZAKI,¹ MD, Masayuki SAKURAI,¹ MD, Yuka SAIKI,¹ MD, Yusuke KODAMA,¹ MD, Hideki NISHIMURA,¹ MD, Hideyuki YAMANAKA,¹ MD, Akira SHINOZUKA,² MD, Takehiko GOKAN,³ MD, *and* Takashi KATAGIRI,¹ MD

Conclusion: Coronary arterial plaque characterized by MSCT can predict intervention-related complication. It may be important for the risk stratification of the patients scheduled to undergo PCI to investigate plaque configuration by MSCT. (Int Heart J 2007; 48: 25-33)

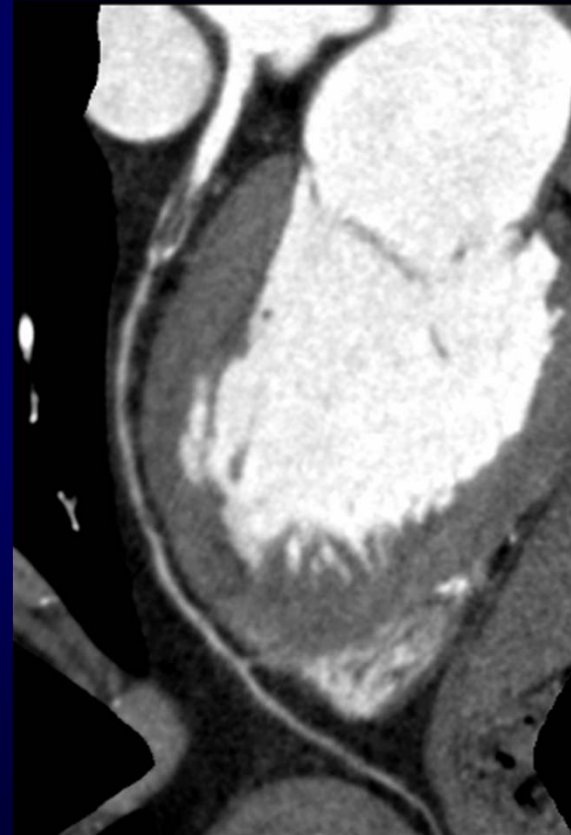
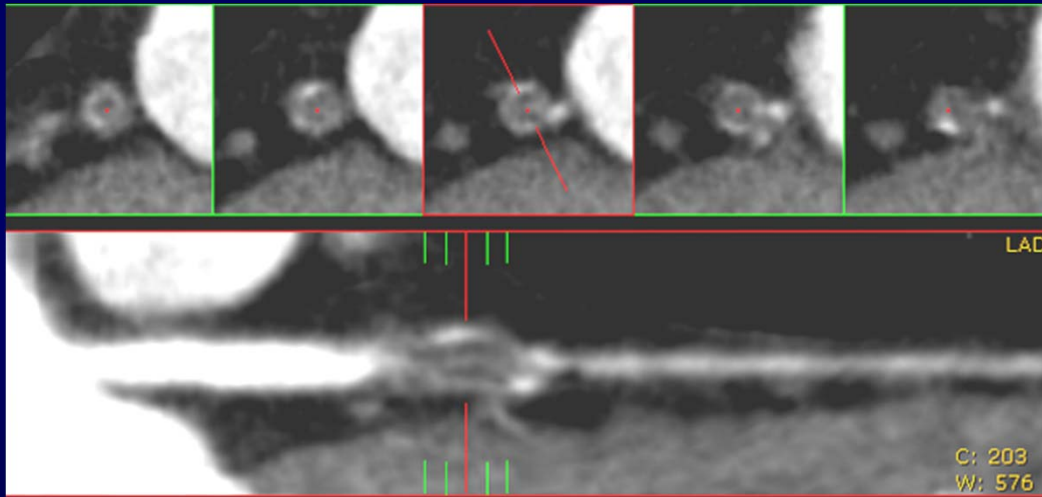
Total Oklüzyon ve Distal Retrograd Doluş



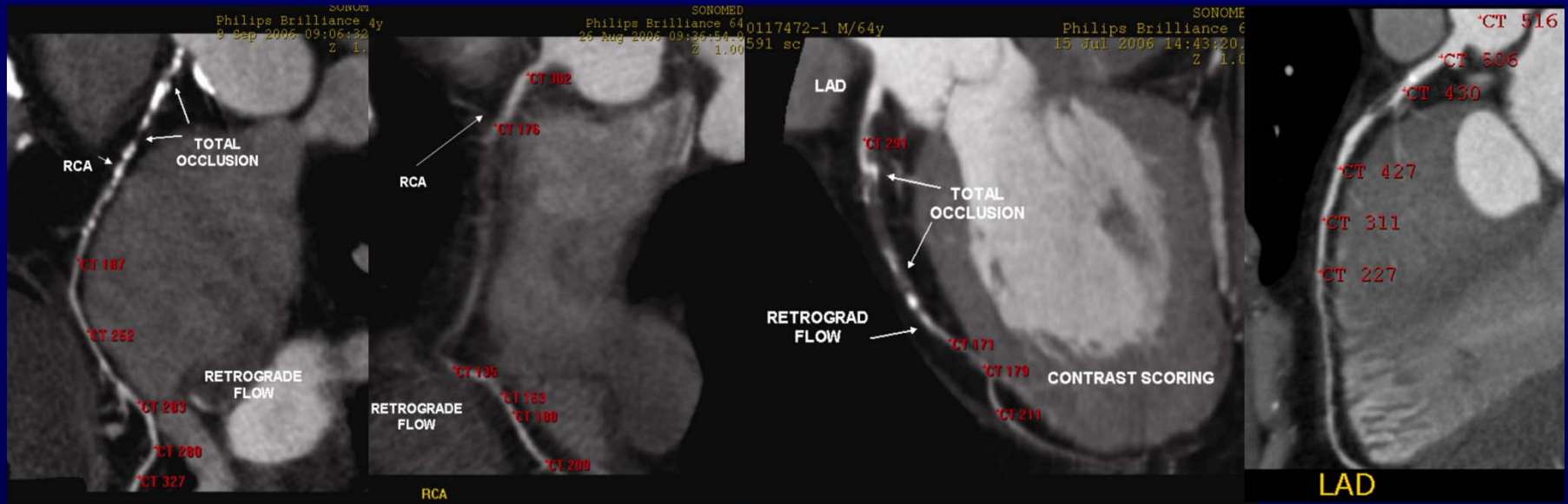
Total Oklüzyon ve Distal Retrograd Doluş



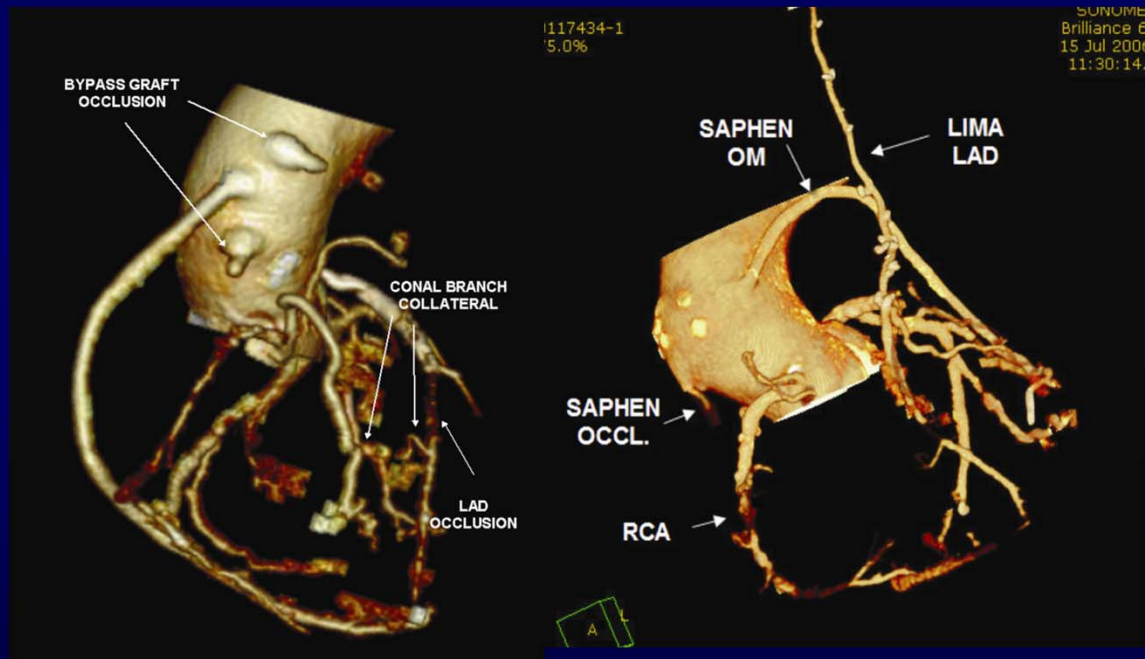
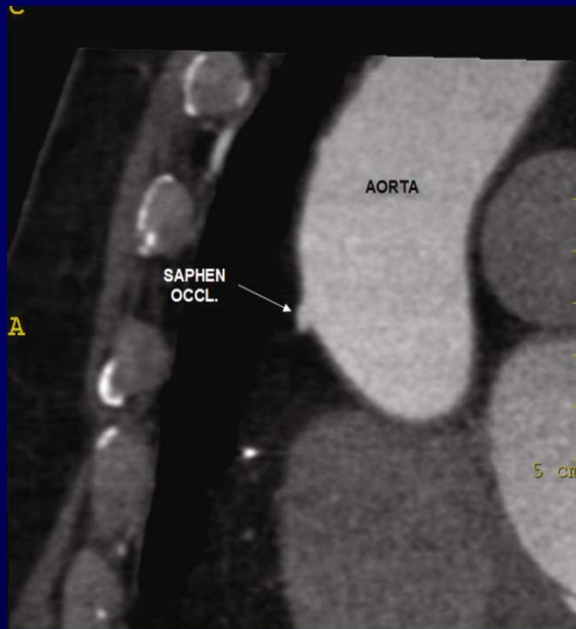
Total Oklüde Segment Yapısı ve Bridge Kollateral



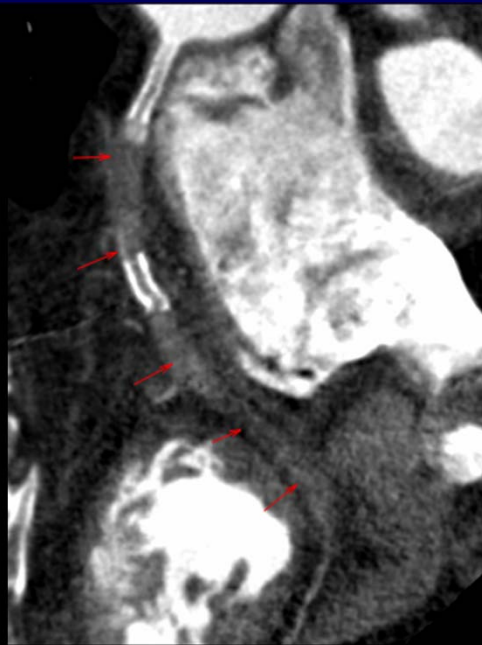
Kontrast Skorlama ile Koroner Akım Yönü Belirleme



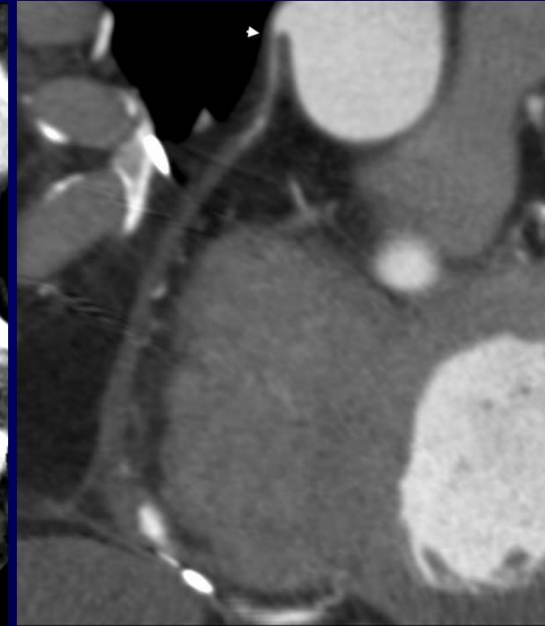
Bypass Total Oklüzyon



Bypass Total Oklüzyon



AORTA-RCA

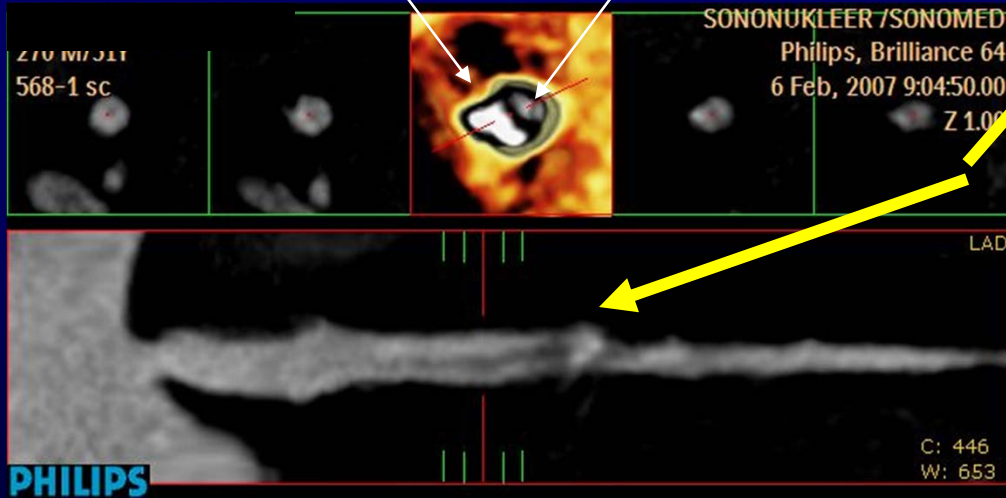


AO-RCA

Diseksiyonlu koroner plak

Gerçek lümen

Yalancı lümen



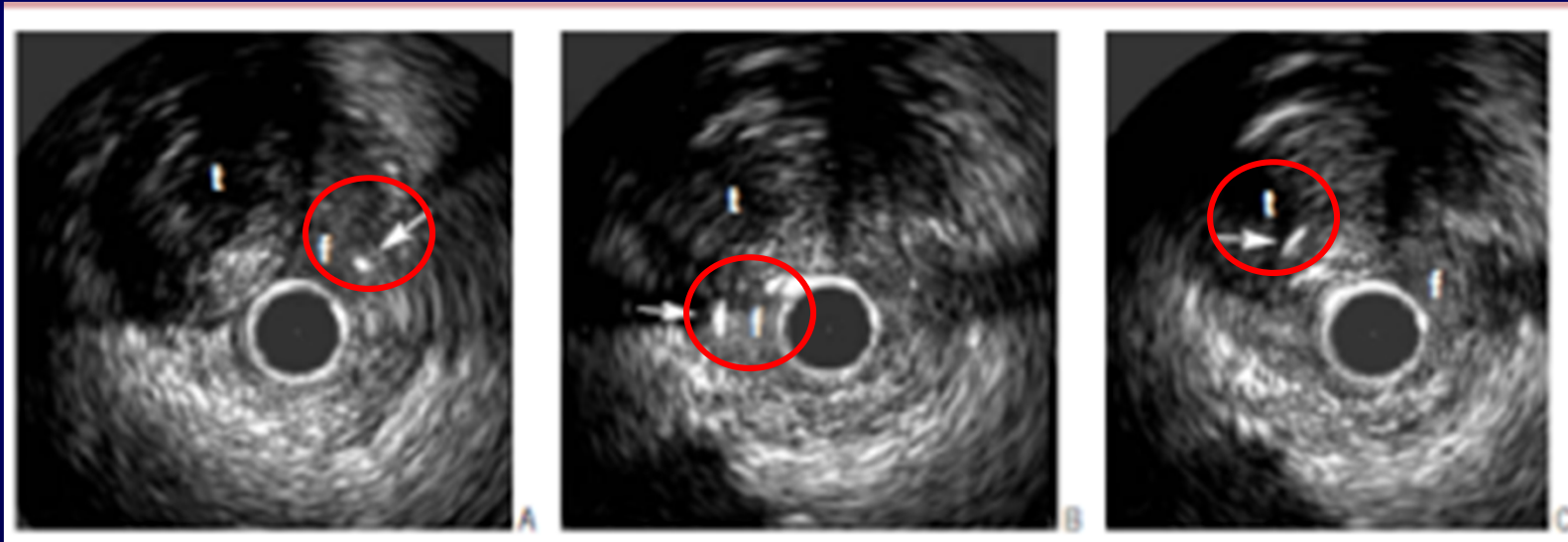
IVUS ve KTO



Kullanım hedefleri

- Guide wire ile geçilmiş olan yalancı lümenin saptanması
- Guide wire'ın tekrar gerçek lümene geçiş
- Guide wire ile giriş yeri seçimi
- Optimal Damar çapı belirleme

IVUS ile Guide Wire (GW) Pozisyonu Belirleme

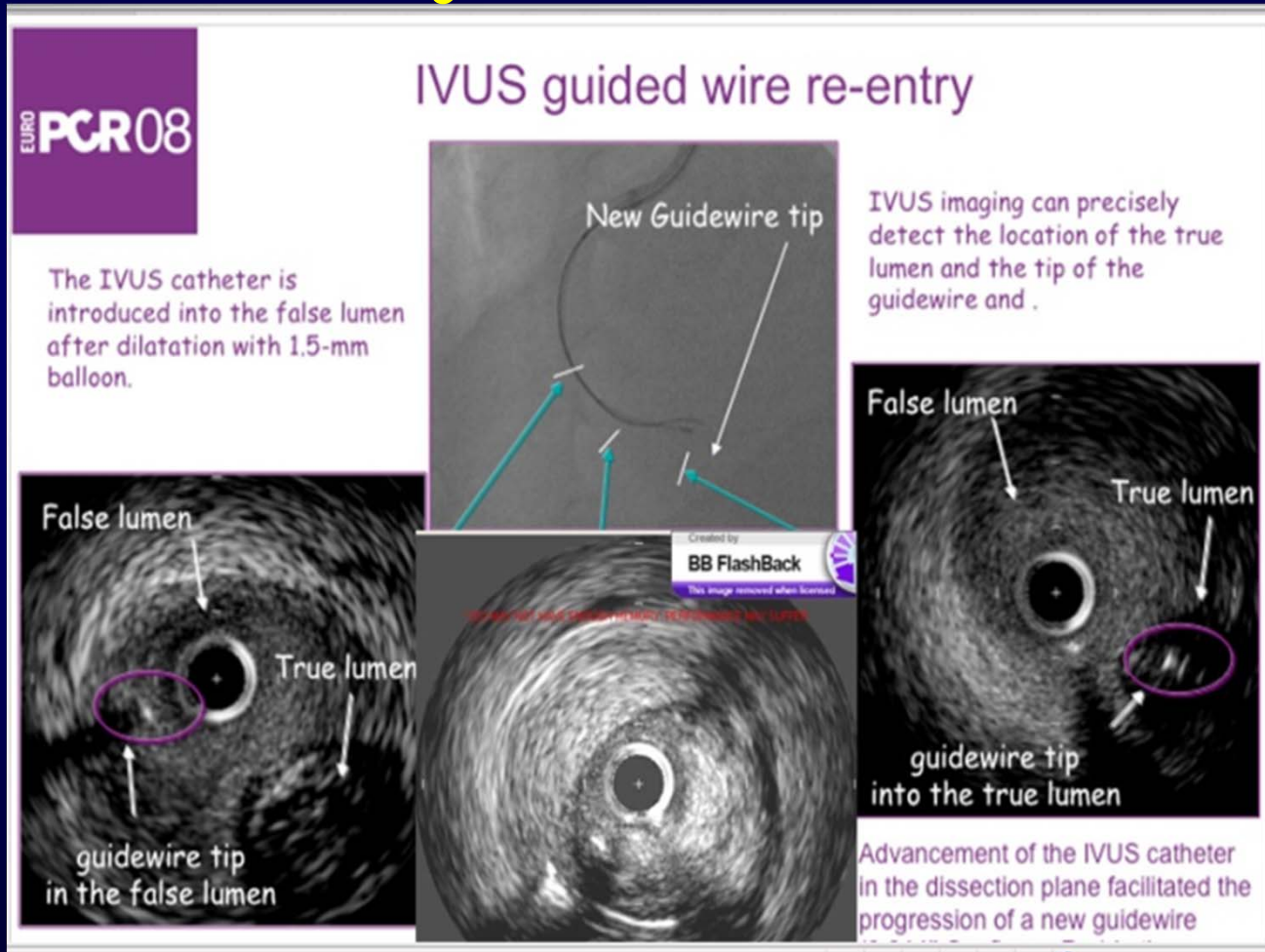


GW yalancı
Lümende

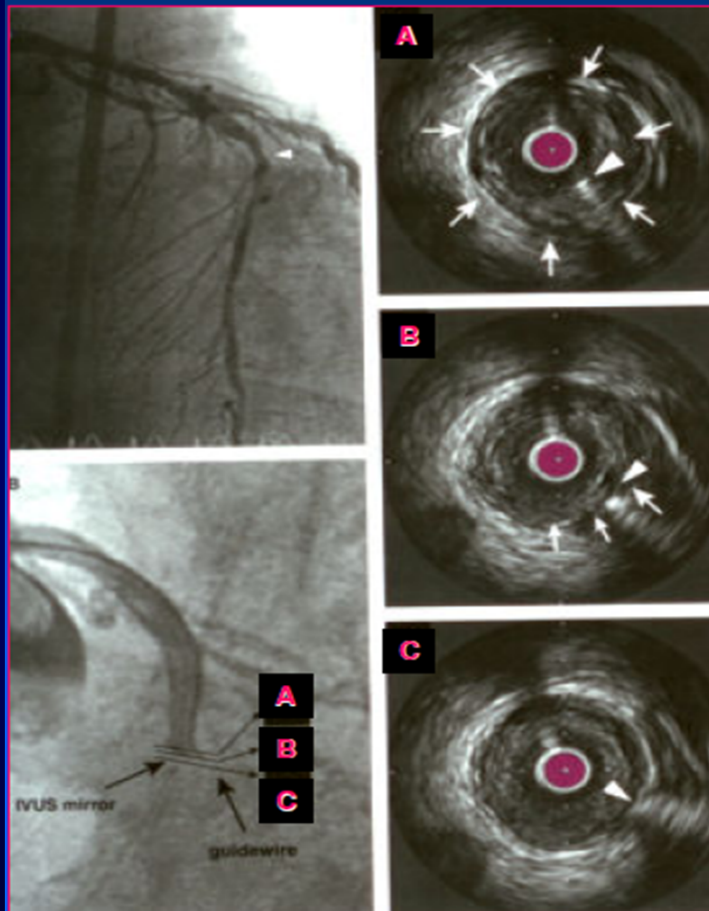
GW hala yalancı
Lümende

GW Gerçek
Lümende

IVUS ile Guide Wire (GW) Pozisyonu Belirleme



IVUS ile Guide Wire (GW) Pozisyonu Belirleme



IVUS for Non-Tapered Occlusions

➤ 8 Fr GC

➤ Large Vessel/SB where
origin occluded vessel is
located

From Tanigawa, Kato, Di
Mario

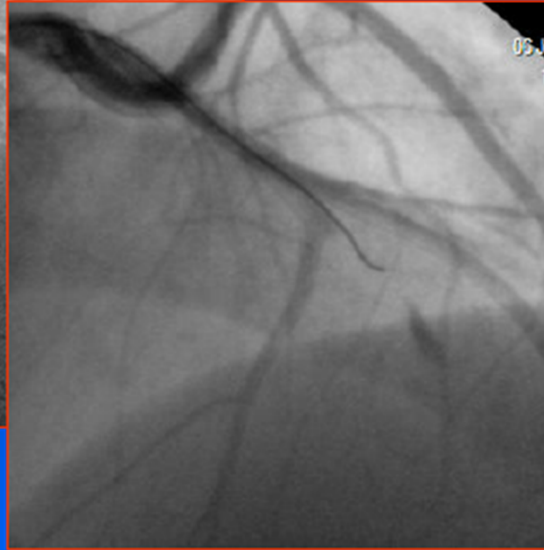
CTO: Do we need IVUS
guidance?

In Regar, Serruys (eds),
Futura 2006

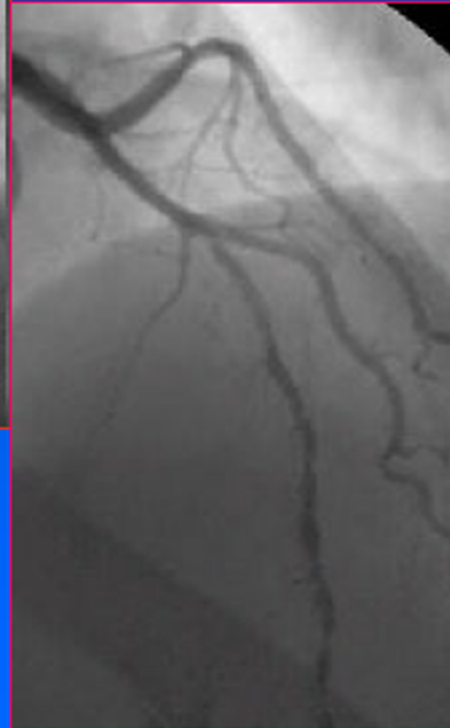
IVUS: KTO da işlem sonrası optimal stent çapı belirleme



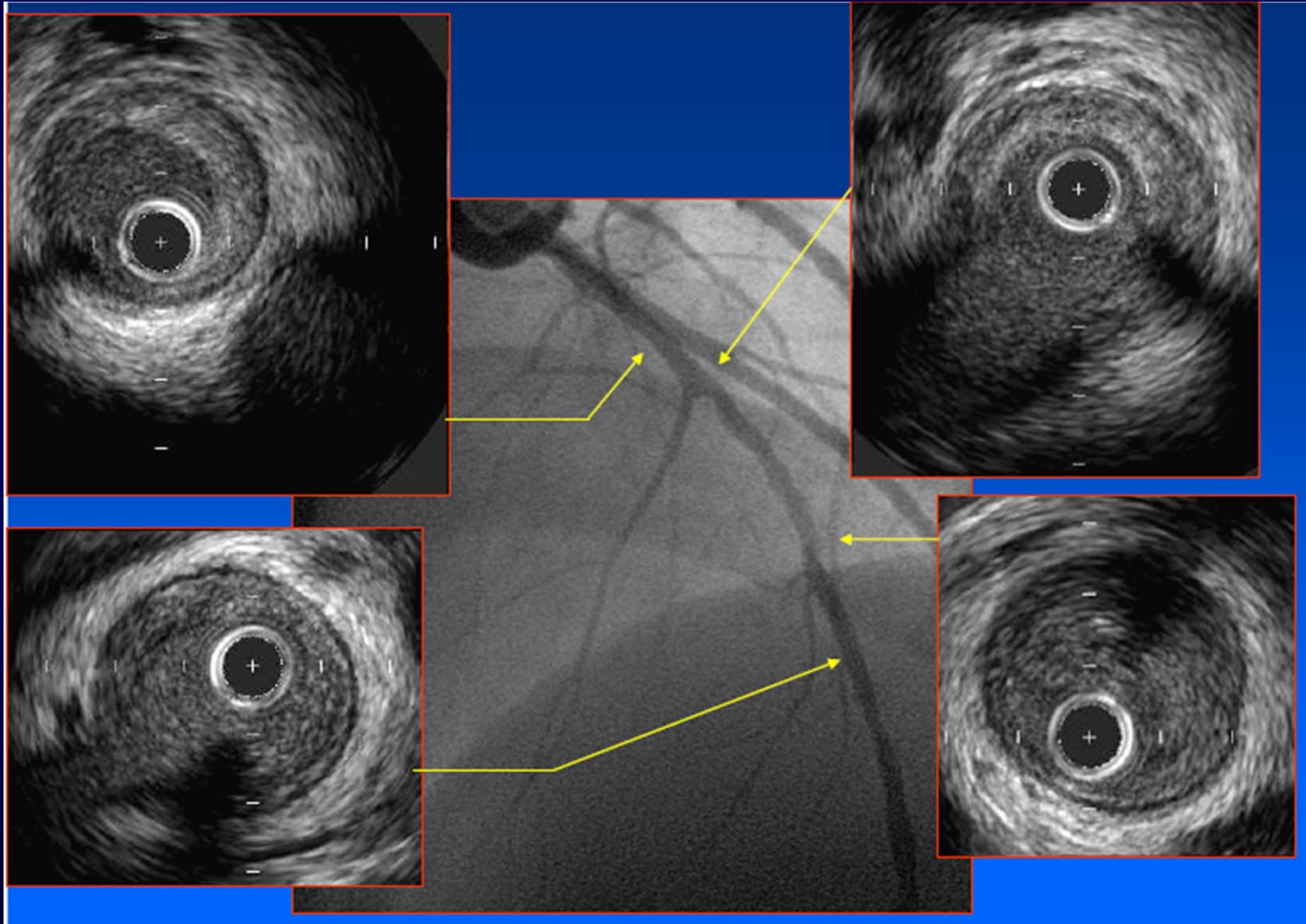
PCI to Occluded LAD



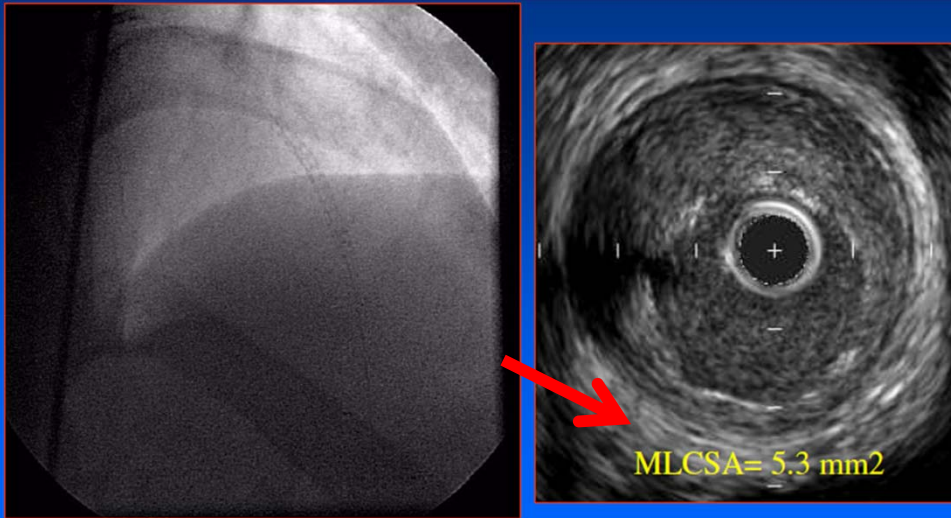
After 1.5 mm Balloon



IVUS: KTO da işlem sonrası optimal stent çapı belirleme

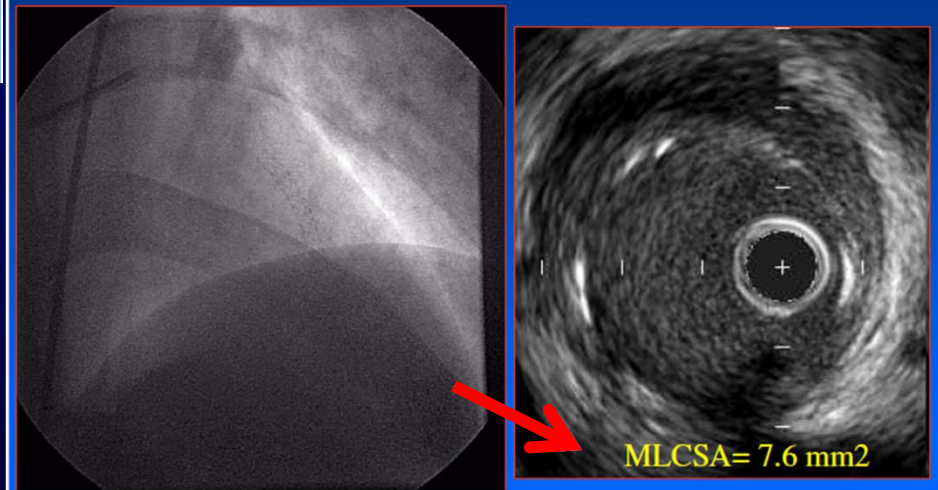


IVUS: KTO da işlem sonrası optimal stent çapı belirleme



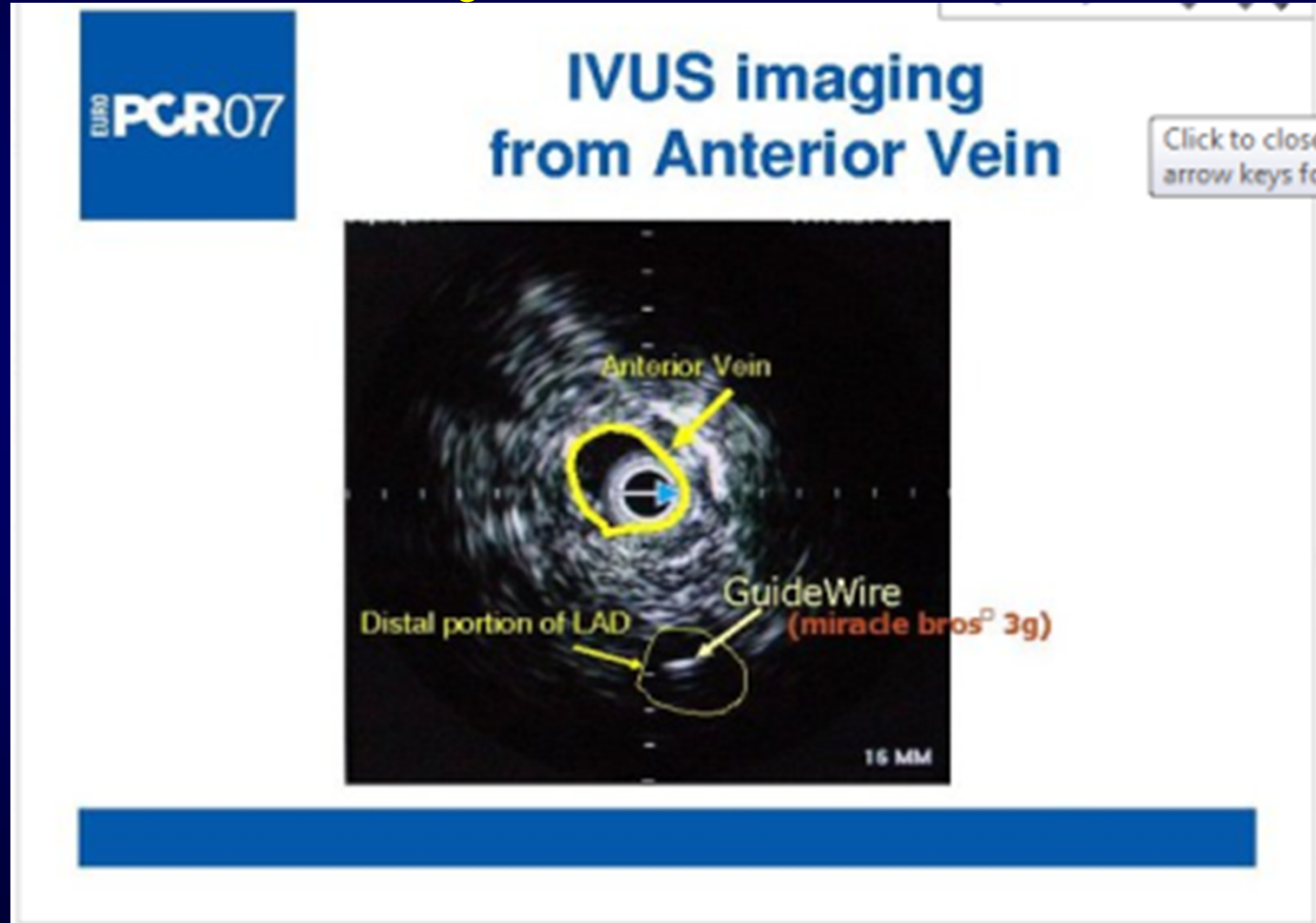
ReoPro Bolus + Cypher 3.0/33 mm @ 16 atm

Final result



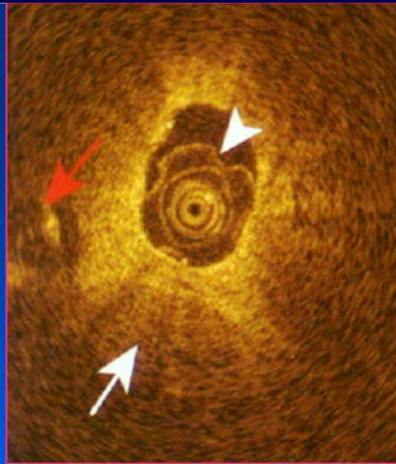
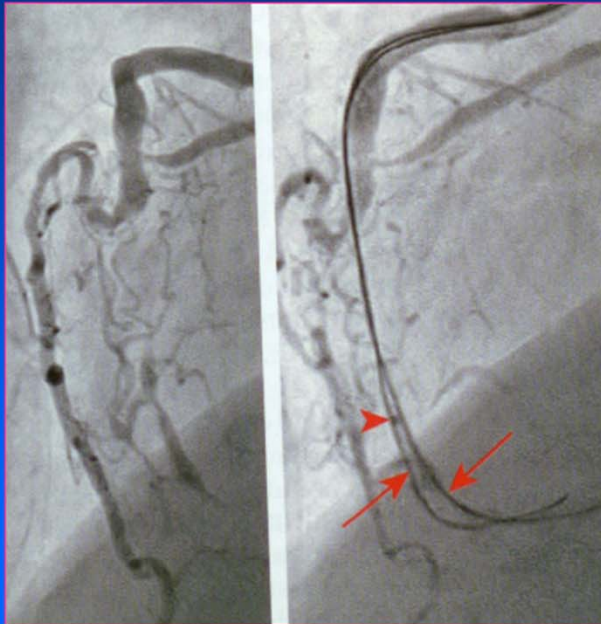
Postdilatation 3.5 x 15 mm long Quantum Maverick @ 20 Atm

IVUS ile Guide Wire (GW) Pozisyonu Belirleme

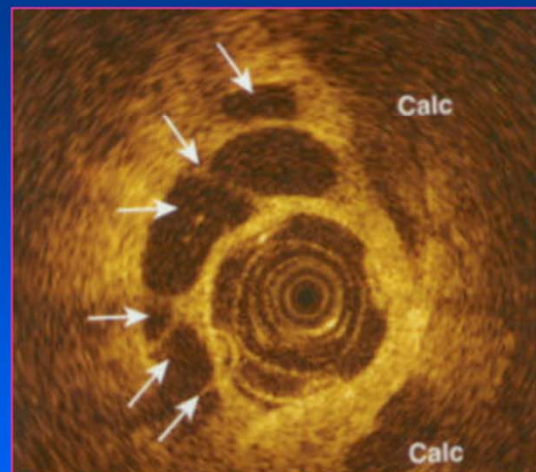


OCT ile KTO'ya yaklaşım

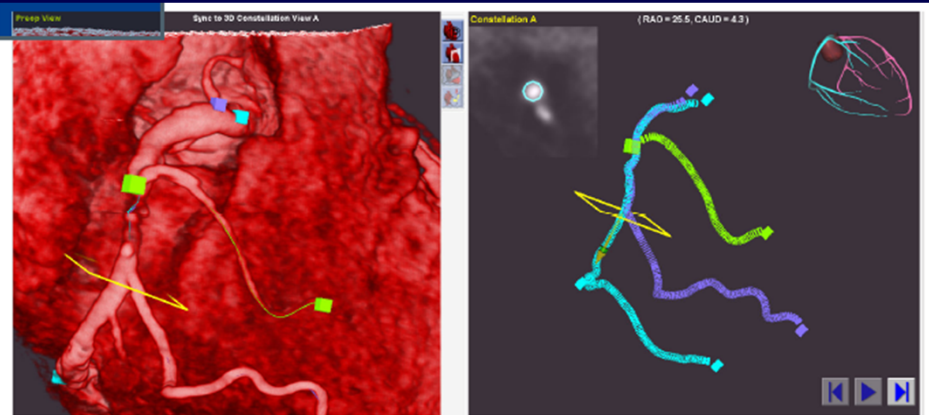
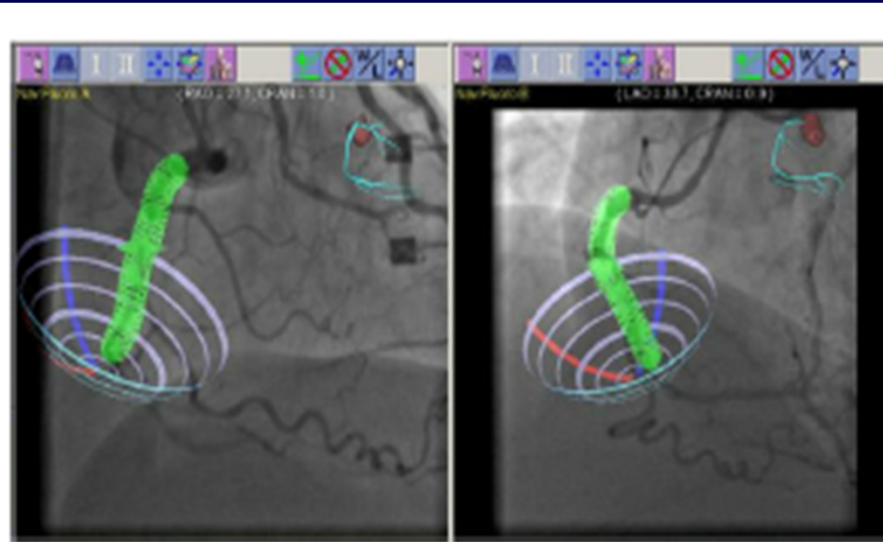
OCT Guidance of Wire Manipulation



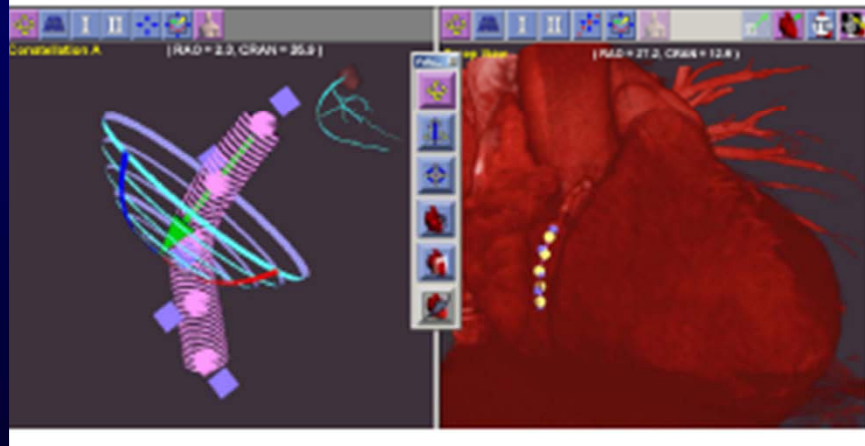
Multiple Channels within the Occlusion



Manyetik Navigasyon ile KTO İşlemi Yapılması



Vessel Centerline automatically created for RCA etc.
Navigant through CTO while showing corresponding
CT data (inset of constellation window).



SONUÇ

- ÇKBT kronik total oklüzyon lezyonlarının tanımlanmasında oldukça önemli bilgiler sağlamaktadır.
- ÇKBT nin işlem öncesi kullanımı işlem başarısı ve işlem güvenliğini arttırmaktadır.
- ÇKBT kullanımı kompleks koroner işlemlerde giderek artacaktır.