angiography and no history of MI or chronic illness were taken as controls. NT-pro-BNP was measured in baseline serum samples before coronary angiography. Collateral status was determined by Rentrop’s classification. Rentrop 0 and 1 were regarded as poor collateral and Rentrop 2 and 3 as good collateral.

RESULTS
NT-pro-BNP concentrations in patients with single-vessel total coronary occlusion were higher compared with controls (159.3 ± 35.3pg/ml vs 56.2 ± 13.6pg/ml, p<0.01). Plasma NT-pro-BNP levels were 288.3 ± 48.6pg/ml vs 82.4 ± 23.5pg/ml for patients in poor collateral (37 patients) and good collateral (59 patients) groups. Plasma NT-pro-BNP level in poor collateral group was significantly higher than in good collateral group (p<0.05). There was no significant difference in plasma NT-pro-BNP concentration between patients having proximal or distal total coronary occlusions (124.3 ± 31.2pg/ml vs 108.2 ± 24.5pg/ml, p=0.52). After adjustment in the multiple ordinal logistic regression model, plasma NT-pro-BNP levels showed a strong independent association with collateral Rentrop score (χ²=5.434, OR=1.003, 95% CI 1.000-1.004, p=0.021).

CONCLUSION
Single-vessel chronic total occlusion patients with poor coronary collateral had higher plasma NT-pro-BNP concentrations than good coronary collateral. Coronary collateral circulation is crucial for preserving cardiac function in ischemic heart disease with totally occluded vessels.

TCTAP A-046
Impact of Full Metal Jacket with Second Generation Drug-Eluting-Stents for Chronic Total Occlusion
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BACKGROUND
Our aim in this study was to compare the results of full metal jacket (FMJ) with 2nd drug eluting stent (DES) for CTO lesions and non-CTO lesions.

METHODS
We studied 265 consecutive patients (265 lesions) who underwent FMJ with 2nd DES implantation in our hospital. FMJ was defined as overlapping DES measures >50mm. 102 patients underwent FMJ DES implantation for CTO lesions (CTO group) and remaining 163 patients underwent FMJ for non-CTO lesions (non-CTO group). Outcome measures were target lesion revascularization (TLR) and definite and probable stent thrombosis defined by Academic Research Consortium (ARC) during follow-up terms were compared between two groups.

RESULTS
Patients in CTO group were younger than non-CTO group (65±11 vs. 70±11, p<0.01) and percentage of male was higher in CTO group than non-CTO group (88% vs. 75%, p=0.03). Lesions including left main trunk were significantly lower in CTO group than non-CTO group (1% vs. 5.5%, p=0.04). Other patients and lesions characteristics were similar between two groups. In follow up term (mean 24.2±12.3 months), the incidence of TLR (CTO 17.4% vs. non-CTO 19.8%, p=0.93), ST (CTO 0% vs. non-CTO 1.1%, p=0.17) were similar between two groups.

CONCLUSION
The efficacy and safety of FMJ with 2ndDES for CTO lesions was similar for non-CTO lesions.

TCTAP A-047
Rare Complication of Coronary Guidewire Transection During Rotational Atherectomy via Transradial Access in the Percutaneous Treatment of Chronic Coronary Total Occlusion
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BACKGROUND
Chronic total coronary occlusion remains one of the limitations of percutaneous transluminal coronary angioplasty, and few therapeutic devices are specifically designed to address this problem. Despite advances in device technology, the management of resistant, calcific lesions remains one of the greatest challenges in successful chronic total coronary occlusion intervention. Established techniques to modify calcific lesions include the use of high-pressure non-compliant balloon dilation, cutting-baloons, anchor balloons, Tornus catheter and high speed rotational atherectomy. Rotational atherectomy facilitates percutaneous coronary intervention for chronic total coronary occlusion with severe calcification. Transradial intervention of chronic total coronary occlusion is increasing in frequency and is associated with lower major vascular access site complications. However, the small size of the radial artery is a major limitation of this technique, especially for rotational atherectomy.