



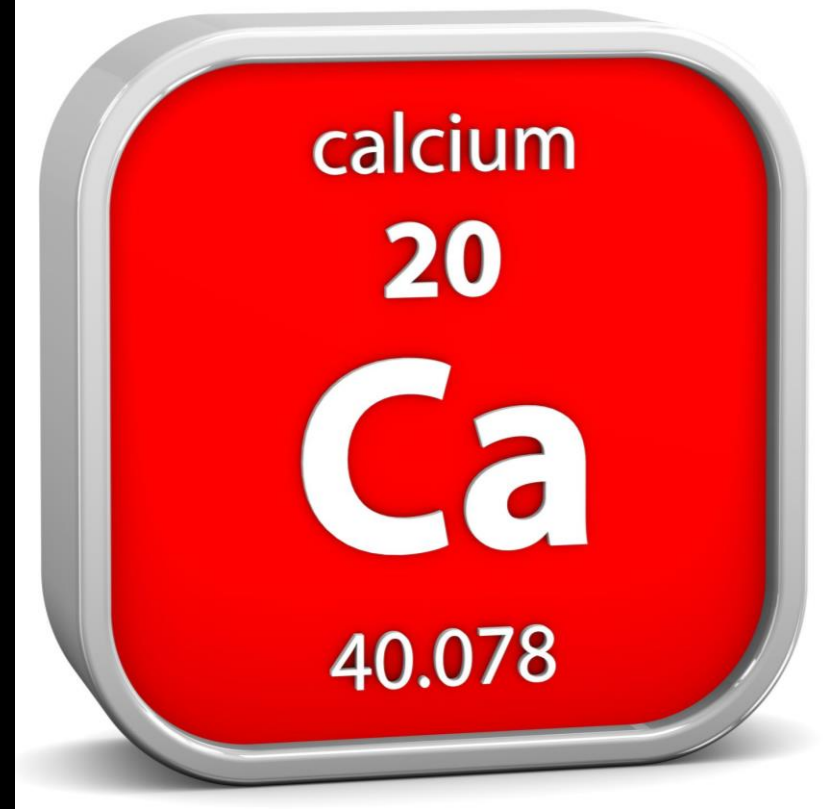
Distal Embolism after Femoro-Popliteal Atherectomy

I-Ming Chen, MD PhD

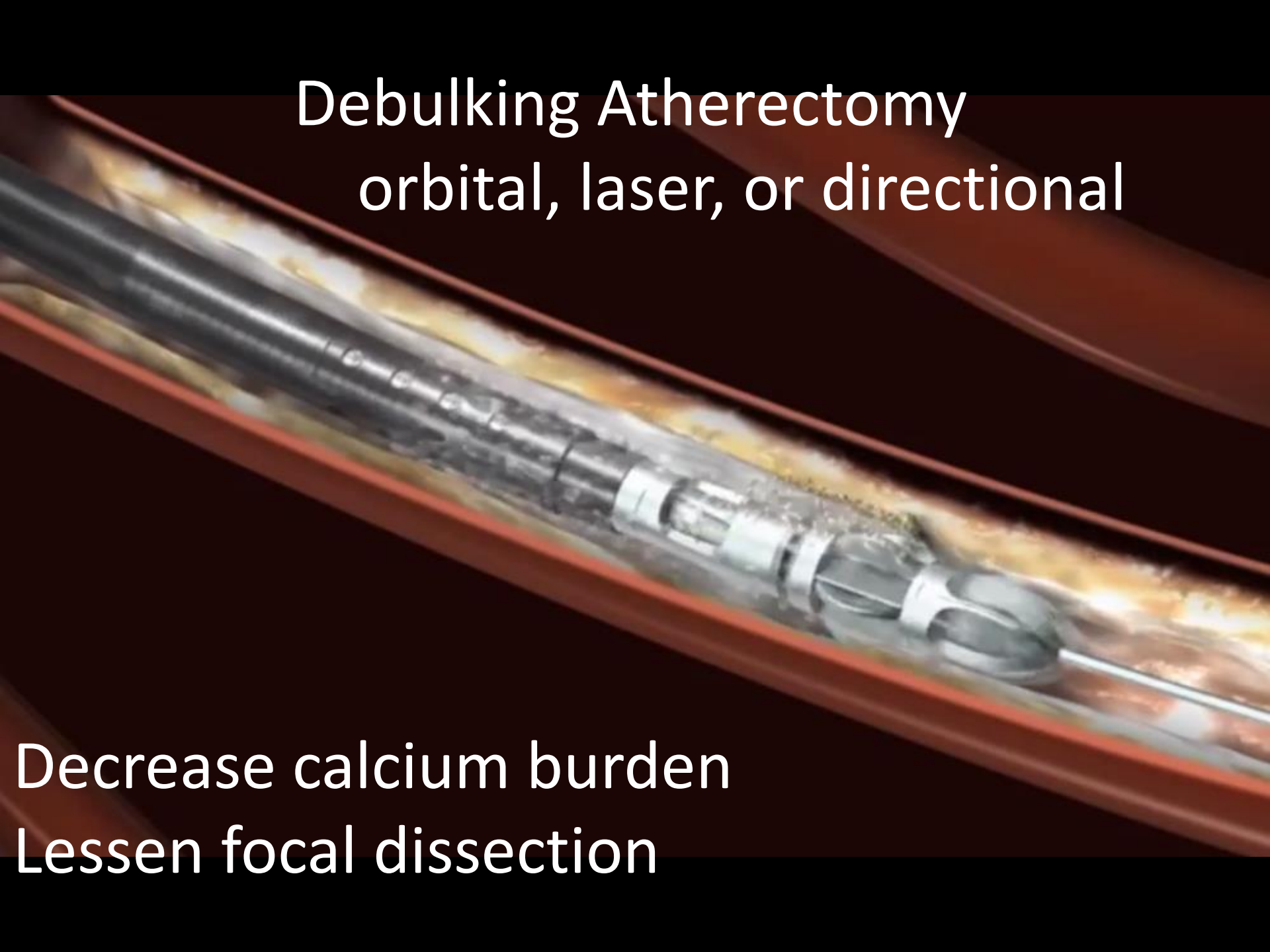
2015 TCTAP Best Young Scientist Award
Attending Surgeon, CVS Taipei VGH, Taiwan
Assistant Professor, Yang-Ming University



Most threatening enemy
of PAD intervention



Debulking Atherectomy orbital, laser, or directional



Decrease calcium burden
Lessen focal dissection

Case presentation

52 y/o male

ESRD s/p HD for 10 years and kidney transplant

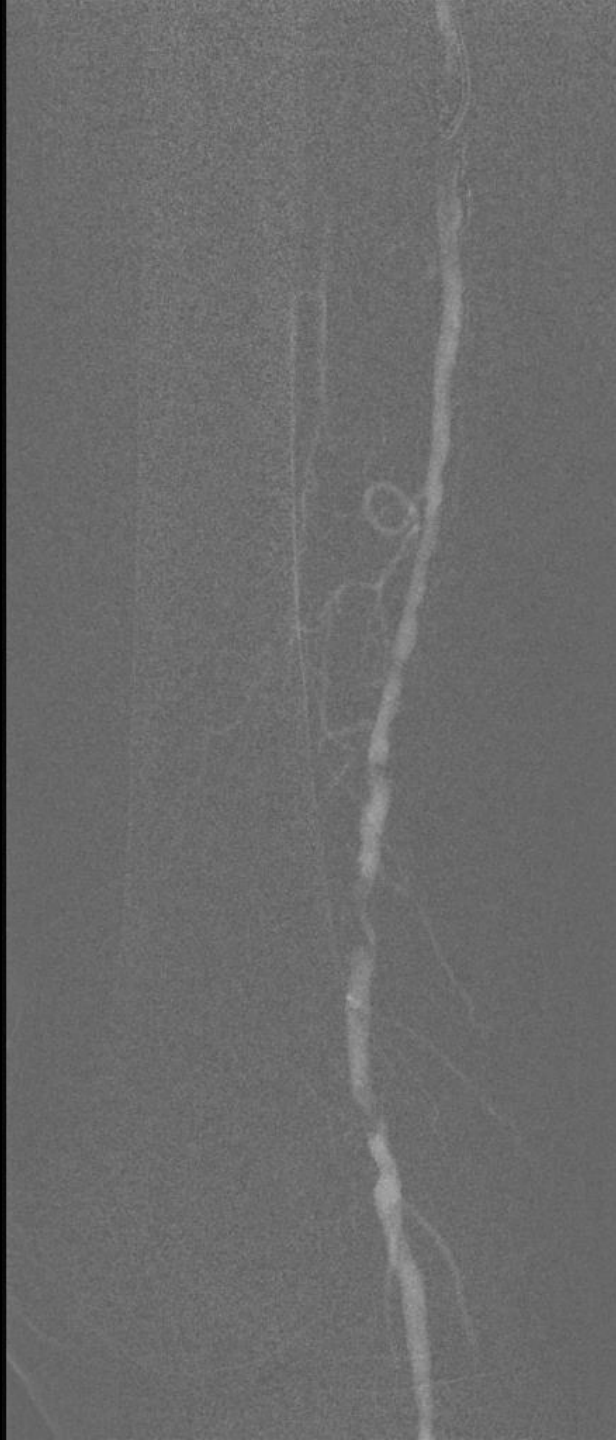
Left PAD s/p iliac stent & F-P bypass 2 years ago

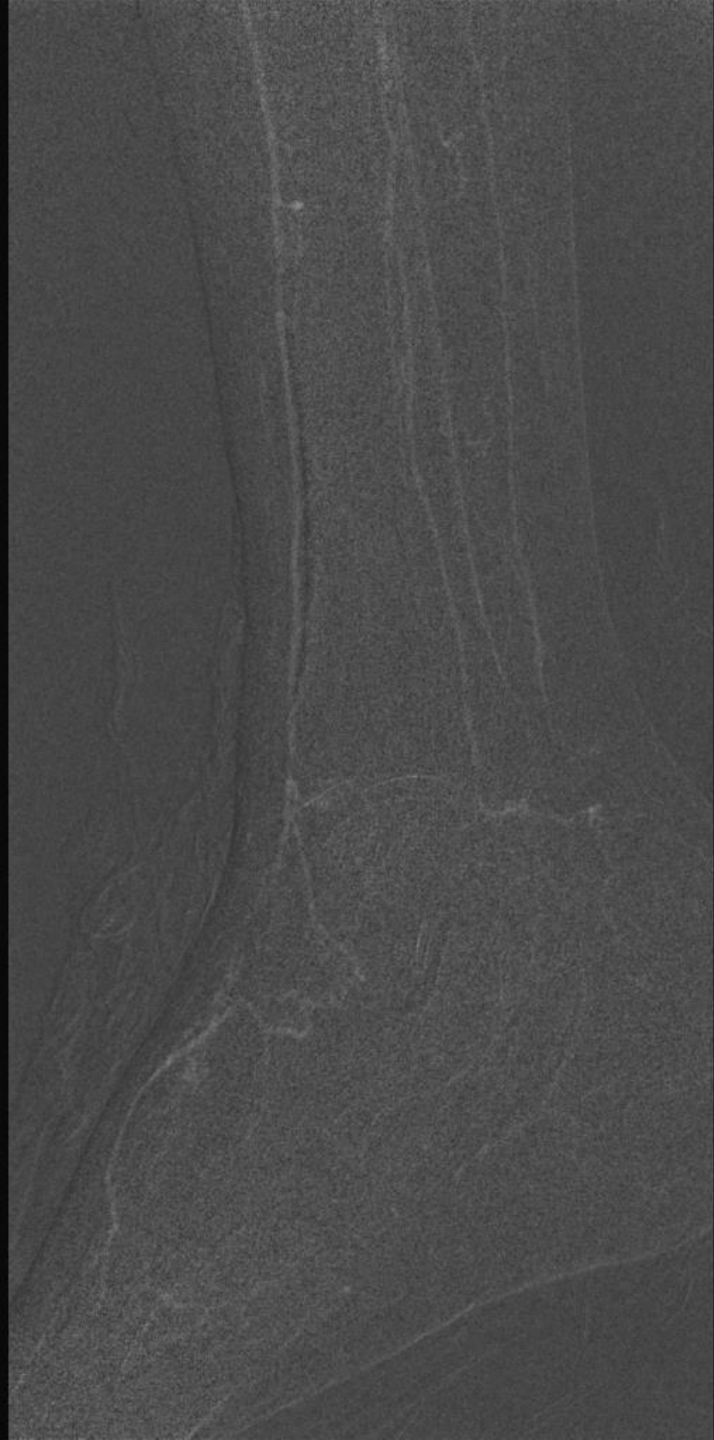
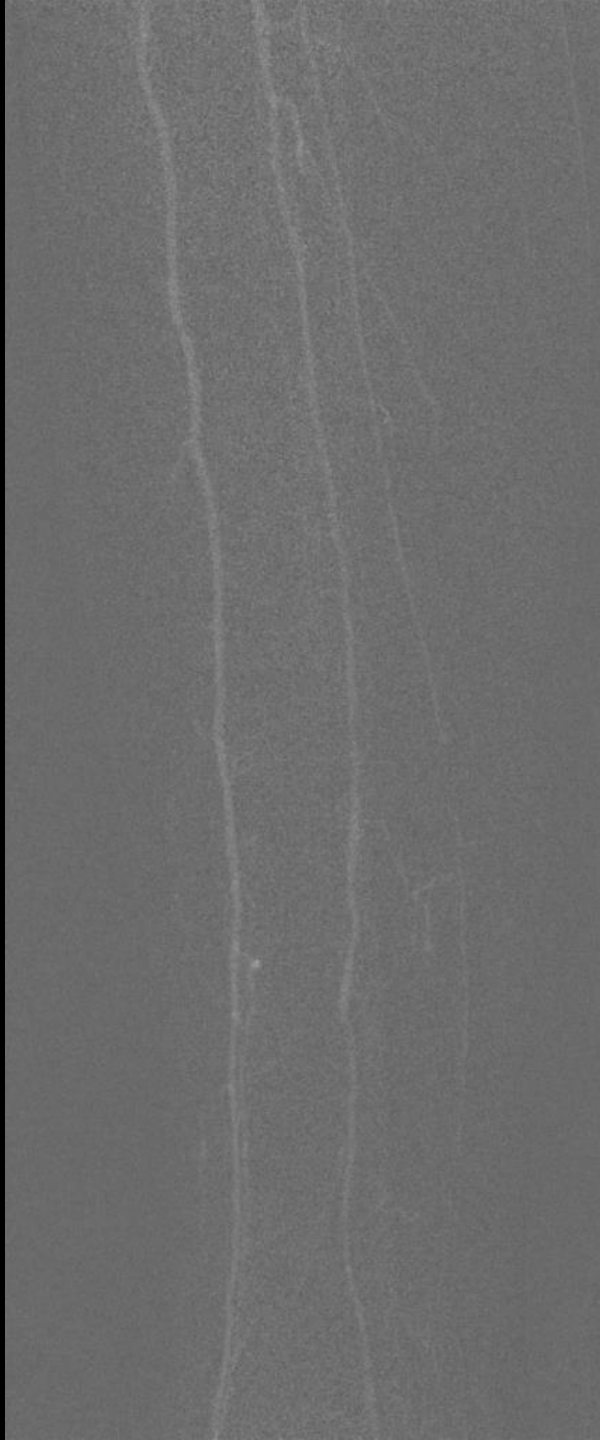
R't leg ulcer for months

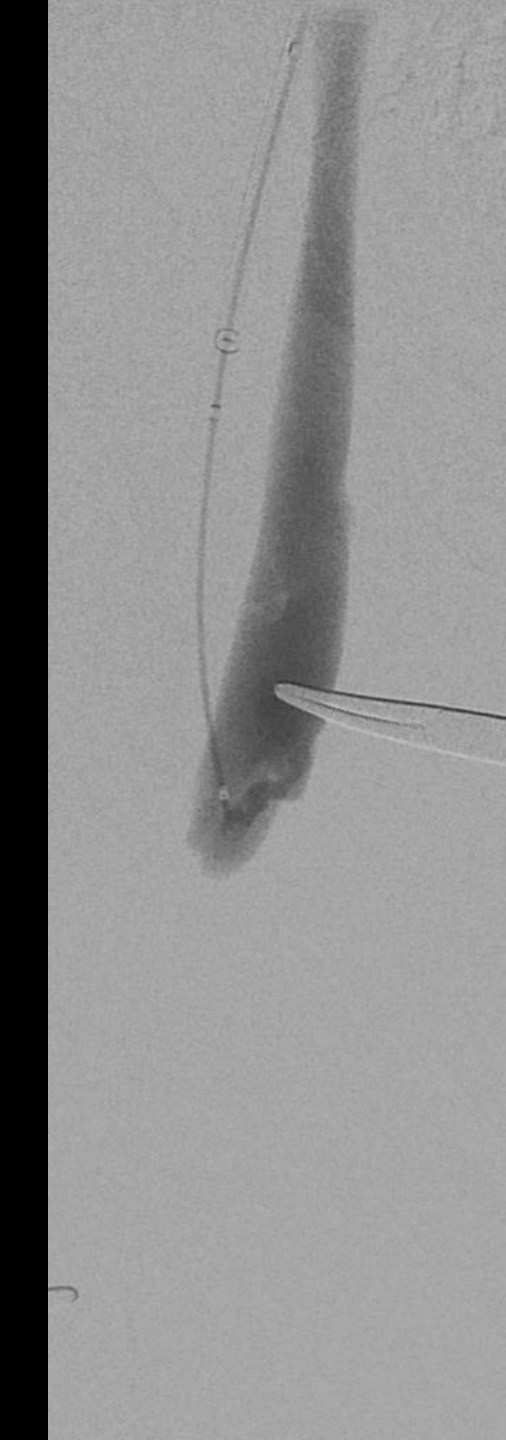
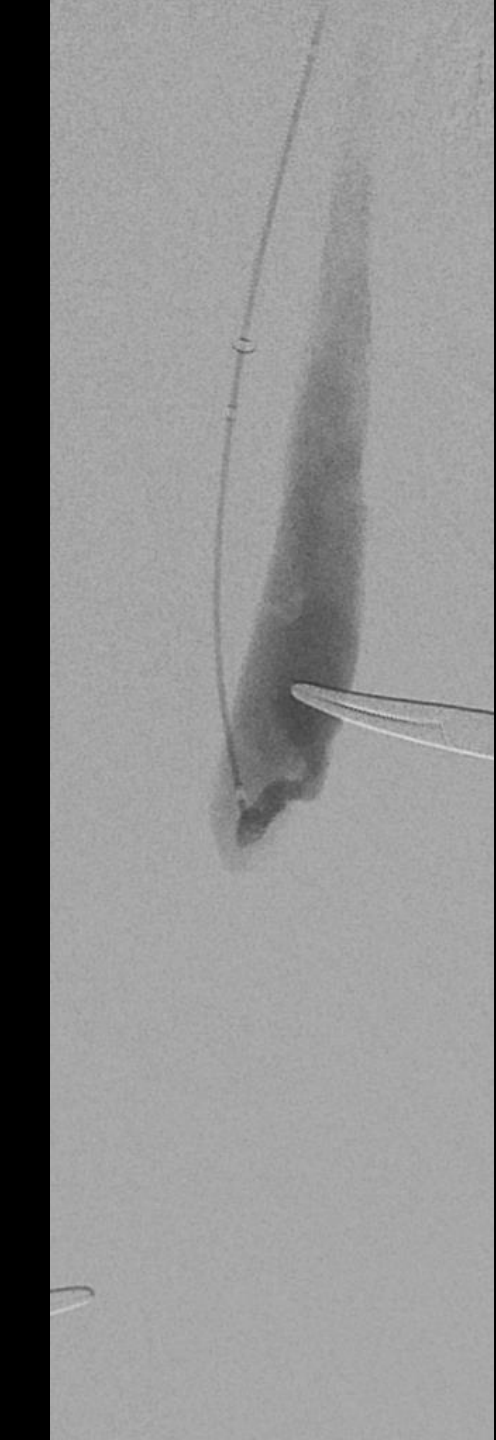
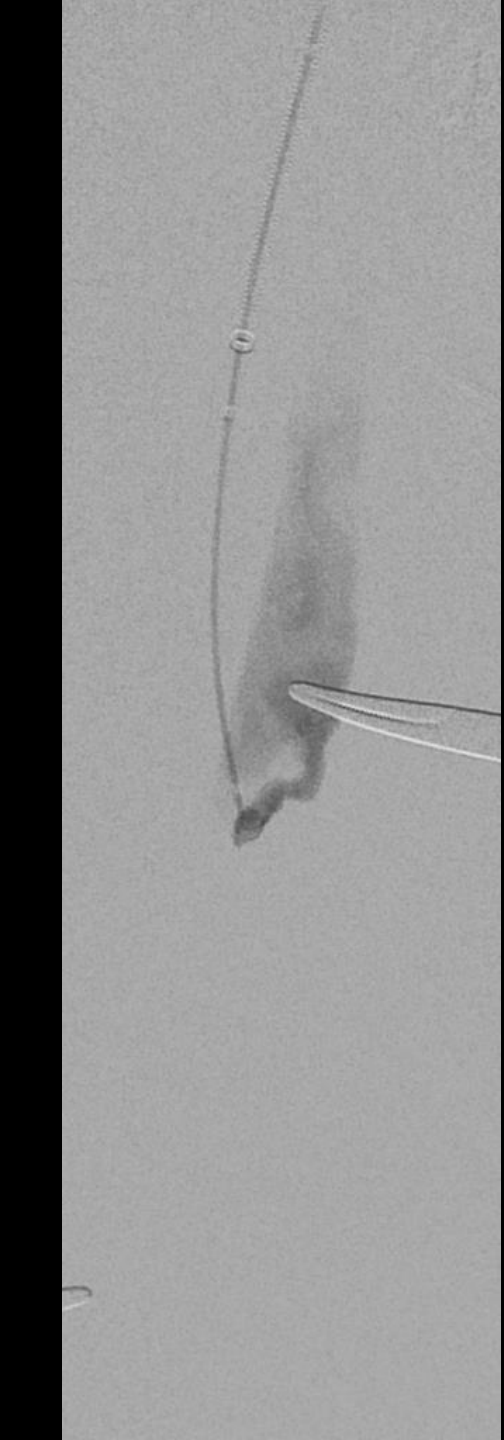
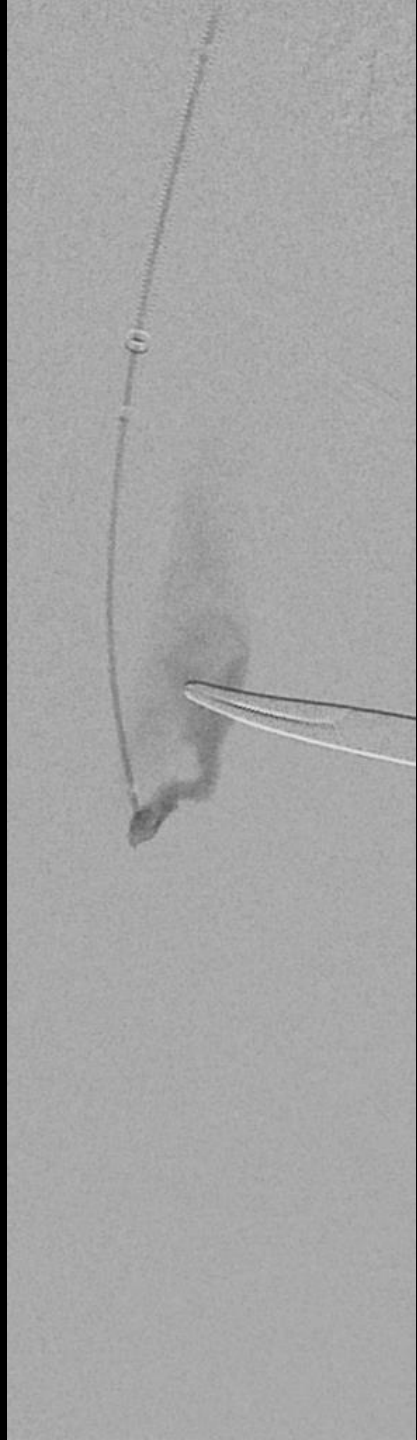
ABI: 0.63/0.8

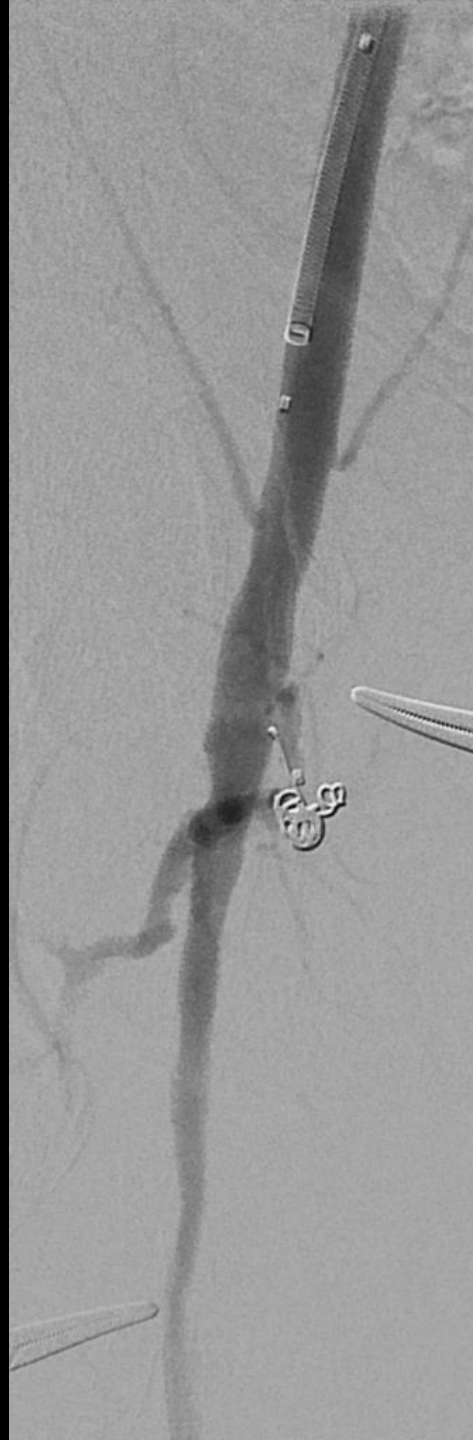
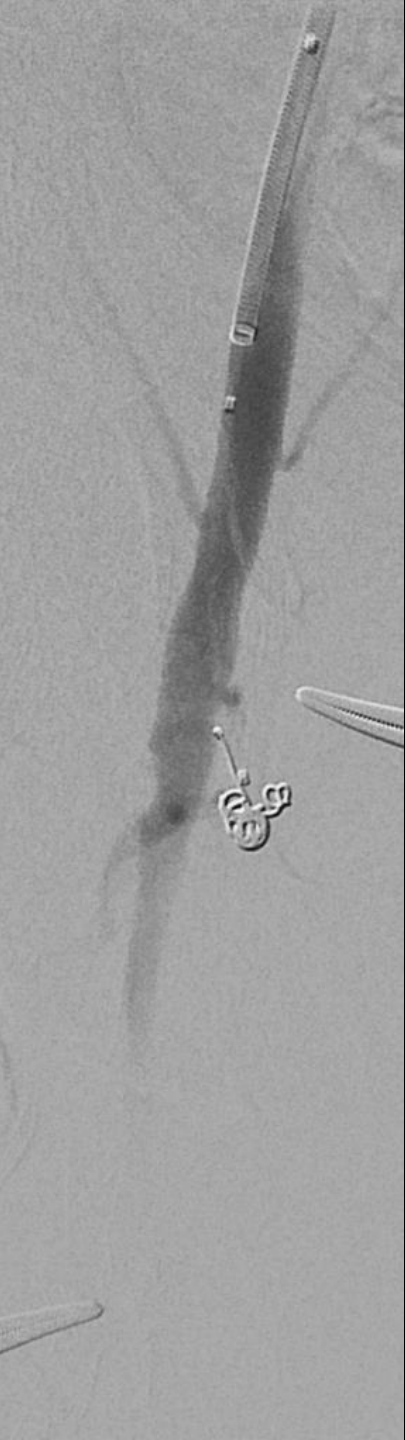








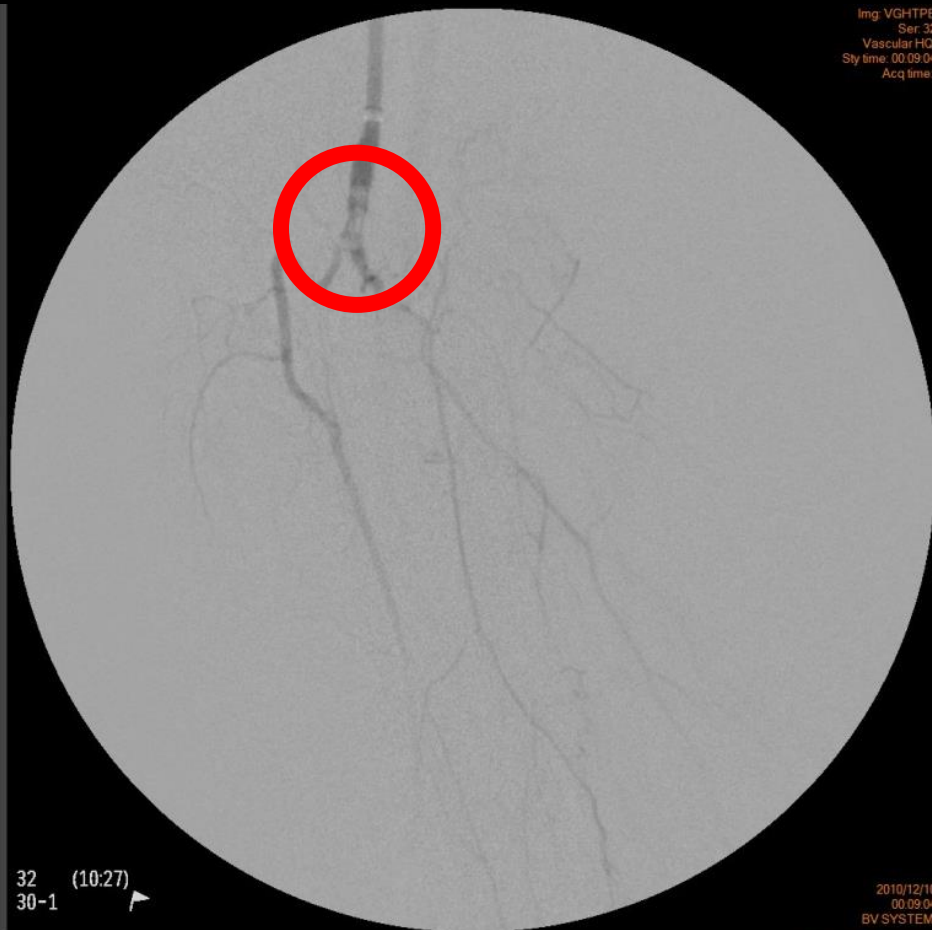








distal embolism after atherectomy



Endovascular thrombectomy



A195-26 PS
3809189-3 41/02/08
林水井 健保 M

Distal embolization during lower extremity endovascular interventions

Cassius I. Ochoa Chaar, MD, MS,^a Fatma Shebl, MD, PhD, MPH,^b Bauer Sumpio, MD, PhD,^a
Alan Dardik, MD, PhD,^c Jeffrey Indes, MD,^d and Timur Sarac, MD,^a *New Haven, West Haven, and Storrs, Conn*

ABSTRACT

Objective: Distal embolization (DE) during peripheral arterial endovascular interventions is a well-known complication that is poorly studied. The goal of this study was to determine the incidence, risk factors, and effect of DE on the outcomes of lower extremity endovascular interventions (LEIs).

Methods: All LEIs between 2010 and 2014 in the Vascular Study Group of New England (VSGNE) database were reviewed. Patient characteristics were analyzed to determine predictors of DE. LEIs involving the superficial femoral artery (SFA) were reviewed to assess the effect of type of treatment on DE. The outcomes examined were loss of patency, limb loss, and mortality after LEI involving the SFA. A multivariable regression was used to determine predictors of DE.

Results: There were 10,875 procedures. The incidence of DE was 17.3 per 1000 procedures, and 68% required treatment (57% endovascular, 11% open surgery). DE was more common in patients treated for critical limb ischemia compared with claudication (relative risk [RR], 2.06; 95% confidence interval [CI], 1.24-3.45; $P = .006$) and for emergency interventions compared with elective (RR, 2.98; 95% CI, 1.22-7.30; $P = .017$). DE increased with the number of arteries treated ($P < .0001$) and with the length of occlusion ($P < .0001$). The SFA was the most commonly treated artery (4751 [43.7%]). In comparison with atherectomy and balloon angioplasty, stenting alone (RR, 0.36; 95% CI, 0.17-0.73; $P = .005$), balloon angioplasty alone (RR, 0.23; 95% CI, 0.13-0.41; $P < .0001$), and combined stenting and balloon angioplasty (RR, 0.29; 95% CI, 0.17-0.49; $P < .0001$) were associated with a significantly lower risk of DE. DE was not significantly associated with loss of patency, major amputation, or mortality.

Conclusions: The incidence of DE during LEIs is 1% to 2% in the VSGNE database, and most patients are treated with additional endovascular interventions. The incidence increases in patients with critical limb ischemia and with the use of atherectomy. (J Vasc Surg 2017;66:143-50.)

Retrospective analysis, include 10875 p'ts from 2010~2014

Distal embolism during intervention

Overall incidence: 1.36~1.87%

Incidence in Atherectomy: 4.3~5.1%

Risk factor: younger, not taking aspirin or statin, CLI, TASC C&D, atherectomy, more BTK intervention

Avoid distal embolism **Conclusion** using atherectomy

Always filter protection

Patient selection and Beware of risk factors

Aggressive thrombectomy

Conclusion

Always filter protection

Patient selection and Beware of risk factors

Aggressive thrombectomy

Thanks for your attention!



I-Ming Chen

