

Improving **Access** to Vascular Care In **Underserved Communities**:  
Enhanced Long Term **Safety & Survival** after  
Transpedal Revascularization for Severe Peripheral Artery Disease

*Justin Ratcliffe, MD, MBA, FACC, FSCAI*  
*Sorin Medical P.C.*

# Disclosure of Relevant Financial Relationships

I, Justin Ratcliffe, DO NOT have any relevant financial relationships to disclose.

# Background

We evaluated the **safety and survival** after transpedal intervention for severe PAD in a large urban cardiovascular practice serving a **diverse population.**

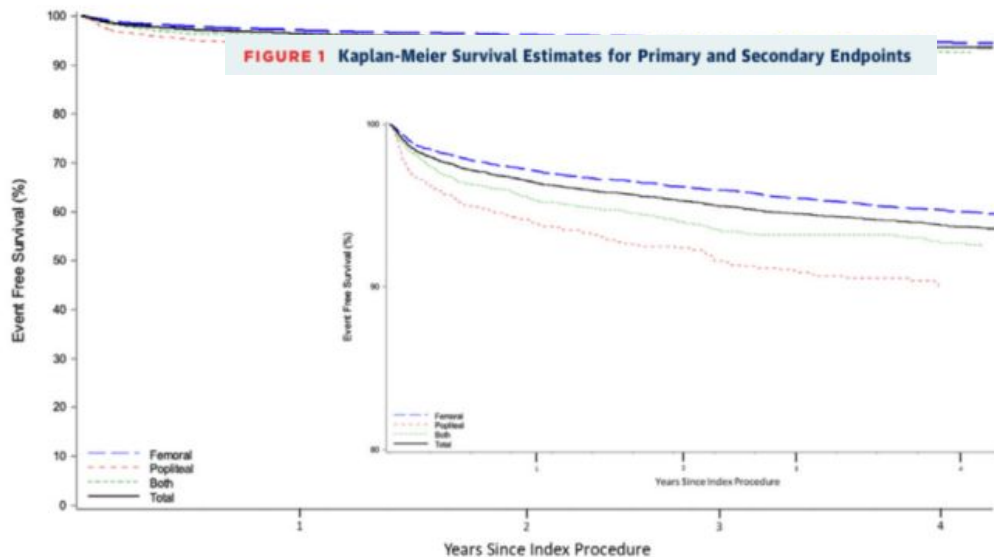
# Background

- The rapid improvement in endovascular techniques for the **treatment** of infrainguinal arterial occlusive disease (PAD) combined with the development of **retrograde transpedal access (TPA)** approach has been increasingly utilized in tibial and femoropopliteal revascularization
- Additionally, **communities of color remain underserved, experience inferior outcomes** and are underrepresented in clinical trials.

# Background

IC patients undergoing FP PVI had 4-year rates of index limb repeat revascularization of 16.7% and **ILA rates of 4.3%.**

## A Freedom from any amputation



	Number at Risk	1	2	3	4
Femoral	13425	10556	7722	5259	2826
Popliteal	2340	1736	1212	803	391
Both	3559	2749	2010	1380	692

Long-Term Patient Outcomes After Femoropopliteal Peripheral Vascular Intervention in Patients With Intermittent Claudication

S. Elvax Alftin, MD,<sup>1,2</sup> Helen Parise, ScD,<sup>1</sup> Corinne N. Hess, MD, MHS,<sup>1,2</sup> Ning A. Rosenfeld, MD, MPH, PhD,<sup>1</sup> Mark A. Cosgrove, MD,<sup>1</sup> Herbert D. Aronow, MD,<sup>3</sup> Jephtha P. Curtis, MD<sup>3</sup>

# Background:

"All the News  
That's Fit to Print"

## The New York Times

VOL. CLXXII . . . No. 59,851

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NEW YORK, SUNDAY, JULY 16, 2023



CVONI ELLEDGE FOR THE NEW YORK TIMES

Kelly Hanna, whose leg was amputated in 2020, received at least 18 artery-opening procedures on her legs from a Michigan doctor.

### Beijing Targets Canada Critics From Overseas

### Meddling With Ottawa Part of Global Aims

By NORIMITSU ONISHI

RICHMOND, British Columbia — The polls predicted a re-election victory, maybe even a landslide.

But a couple of weeks before the vote, Kenny Chiu, a member of Canada's Parliament and a critic of China's human rights record was panicking. Something had flipped among the ethnic Chinese voters in his British Columbia district.

"Initially, they were supportive," he said. "And all of a sudden they just vanished, vaporized, disappeared."

Longtime supporters originating from mainland China were not turning his calls. Volunteers ported icy greetings at former friendly homes. Chinese language news outlets stopped mentioning him. And he was facing onslaught of attacks — from traceable sources — on the community's most popular networking app, the Chinese-owned WeChat.

The sudden collapse of Chiu's campaign — in the local election, in 2021 — is drawing renewed scrutiny mounting evidence of Chinese interference in Canadian politics.

Mr. Chiu and several elected officials critical of China were targets of a Chinese influence over Chinese communities worldwide. An aggressive campaign to expand its global reach, according to current and former officials, Canadian intelligence and experts on Chinese disinformation campaign.

Canada recently expelled a diplomat accused of trying to intimidate a lawyer in the Toronto area, Michigan after he successfully led Parliament to label Chi

## Patients Lost Limbs as Doctors and Health Care Giants Prospered

This article is by Katie Thomas, Jessica Silver-Greenberg and Robert Gebeloff.

Kelly Hanna's leg was amputated on a summer day in 2020, after a Michigan doctor who called himself "the leg saver" had damaged her arteries by snaking metal

### OPERATING PROFITS 'The Leg Saver'

wires through them to clear away plaque.

It started with a festering wound on her left foot. Her podiatrist referred Ms. Hanna to Dr. Ji-had Mustapha. Over 18 months,

artery-opening procedures on Ms. Hanna's legs, telling her they would improve blood flow and prevent amputations.

They didn't — for Ms. Hanna or many of his other patients. Surgeons at nearby hospitals had seen so many of his patients with amputations and other problems that they complained to Michigan's medical board about his conduct. An insurance company told state authorities that 45 people had lost limbs after treatment at his clinics in the past four years.

Dr. Mustapha is no back-alley operator working in the shadows of the medical establishment, an investigation by The New York

### Device Makers Finance Cottage Industry for Risky Procedures

Times has found. With the financial backing of medical device manufacturers, he has become a leader of a booming cottage industry that peddles risky procedures to millions of Americans — enriching doctors and device companies and sometimes costing patients their limbs.

The industry targets the roughly 12 million Americans with peripheral artery disease, in

fat, calcium and other materials, accumulates in the arteries of the legs. For a tiny portion of patients, the plaque can choke off blood flow, leading to amputations or death.

But more than a decade of medical research has shown that the vast majority of people with peripheral artery disease have mild or no symptoms and don't require treatment, aside from getting more exercise and taking medication. Experts said even those who do have severe symptoms, like Ms. Hanna, shouldn't undergo repeated procedures in a short period of time.

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# Background: **National** Baseline Characteristics

Long-Term Patient Outcomes After Femoropopliteal Peripheral Vascular Intervention in Patients With Intermittent Claudication

S. Elissa Altin, MD,<sup>1,2</sup> Helen Parise, ScD,<sup>3</sup> Connie N. Hess, MD, MHS,<sup>4,5</sup> Ning A. Rosenthal, MD, MPH,<sup>6</sup> Mark A. Creager, MD,<sup>7</sup> Herbert D. Aronow, MD,<sup>8</sup> Jephtha P. Curtis, MD<sup>9,10</sup>

**TABLE 1** Baseline Patient Characteristics by Subsequent Index Amputation (Combined Major and Minor)

	Total (N = 19,324)	Index Limb Amputation (n = 643)	No Index Limb Amputation (n = 18,681)
Age, y	68.8 ± 10.7	65.0 ± 11.6 (643)	68.9 ± 10.7 (18,681)
Sex			
Male	11,364 (58.8)	382/643 (59.4)	10,982/18,681 (58.8)
Female	7,958 (41.2)	261/643 (40.6)	7,697/18,681 (41.2)
Race			
Asian	184 (1.0)	7/643 (1.1)	177/18,681 (0.9)
Black	2,679 (13.9)	127/643 (19.8)	2,552/18,681 (13.7)
White	14,513 (75.1)	451/643 (70.1)	14,062/18,681 (75.3)
Other	1,625 (8.4)	44/643 (6.8)	1,581/18,681 (8.5)
Unknown	323 (1.7)	14/643 (2.2)	309/18,681 (1.7)
Hispanic	907 (4.7)	40/643 (6.2)	867/18,681 (4.6)
Obesity, BMI >30 kg/m <sup>2</sup>	2,117 (11.0)	77/643 (12.0)	2,040/18,681 (10.9)
Smoking	5,483 (28.4)	251/643 (39.0)	5,232/18,681 (28.0)
Any nicotine use	5,509 (28.5)	251/643 (39.0)	5,258/18,681 (28.1)
Hypertension	10,751 (55.6)	327/643 (50.9)	10,424/18,681 (55.8)
Hyperlipidemia	12,460 (64.5)	386/643 (60.0)	12,074/18,681 (64.6)
Diabetes	7,720 (40.0)	357/643 (55.5)	7,363/18,681 (39.4)
Coronary artery disease	9,351 (48.4)	320/643 (49.8)	9,031/18,681 (48.3)
COPD	3,736 (19.3)	147/643 (22.9)	3,589/18,681 (19.2)
Congestive heart failure	1,732 (9.0)	59/643 (9.2)	1,673/18,681 (9.0)
Chronic kidney disease	3,622 (18.7)	180/643 (28.0)	3,442/18,681 (18.4)
Cerebrovascular disease	1,832 (9.5)	50/643 (7.8)	1,782/18,681 (9.5)

Values are mean ± SD, n (%), or n/N (%).

BMI = body mass index; COPD = chronic obstructive pulmonary disease.

# Methods

- The first consecutive **1,108** patients treated for PAD in our transpedal first outpatient center from 2015–2023 were studied.
- **Amputation and survival outcomes** were assessed using
  - Chart review, Office visits, and Follow-up phone calls.
- **Kaplan-Meier** survival and amputation rates were calculated.



# Results: **Sorin** Baseline Characteristics

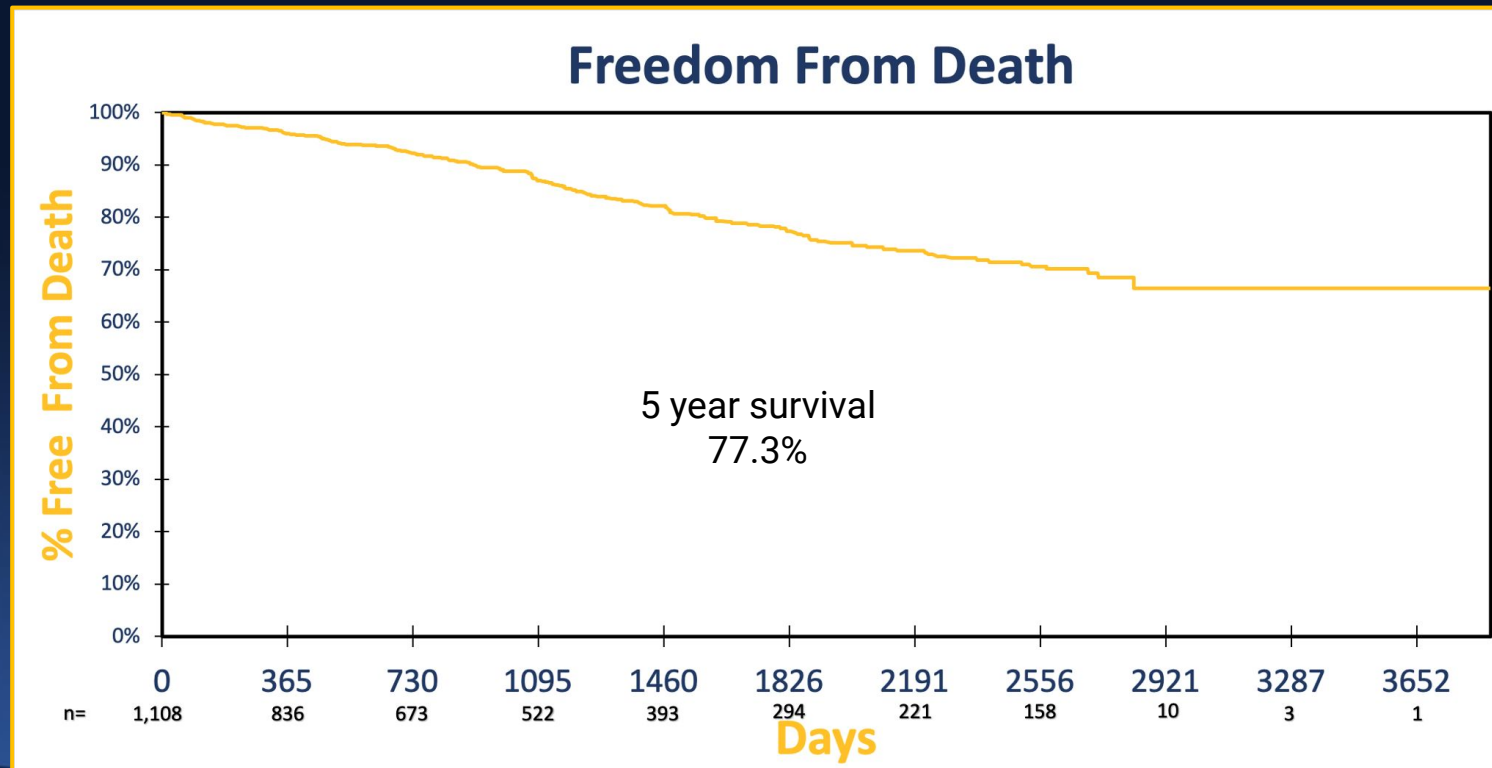
## Majority Minority

**Table 1: Baseline Patient Characteristics  
by Subsequent Index Amputation and Death**

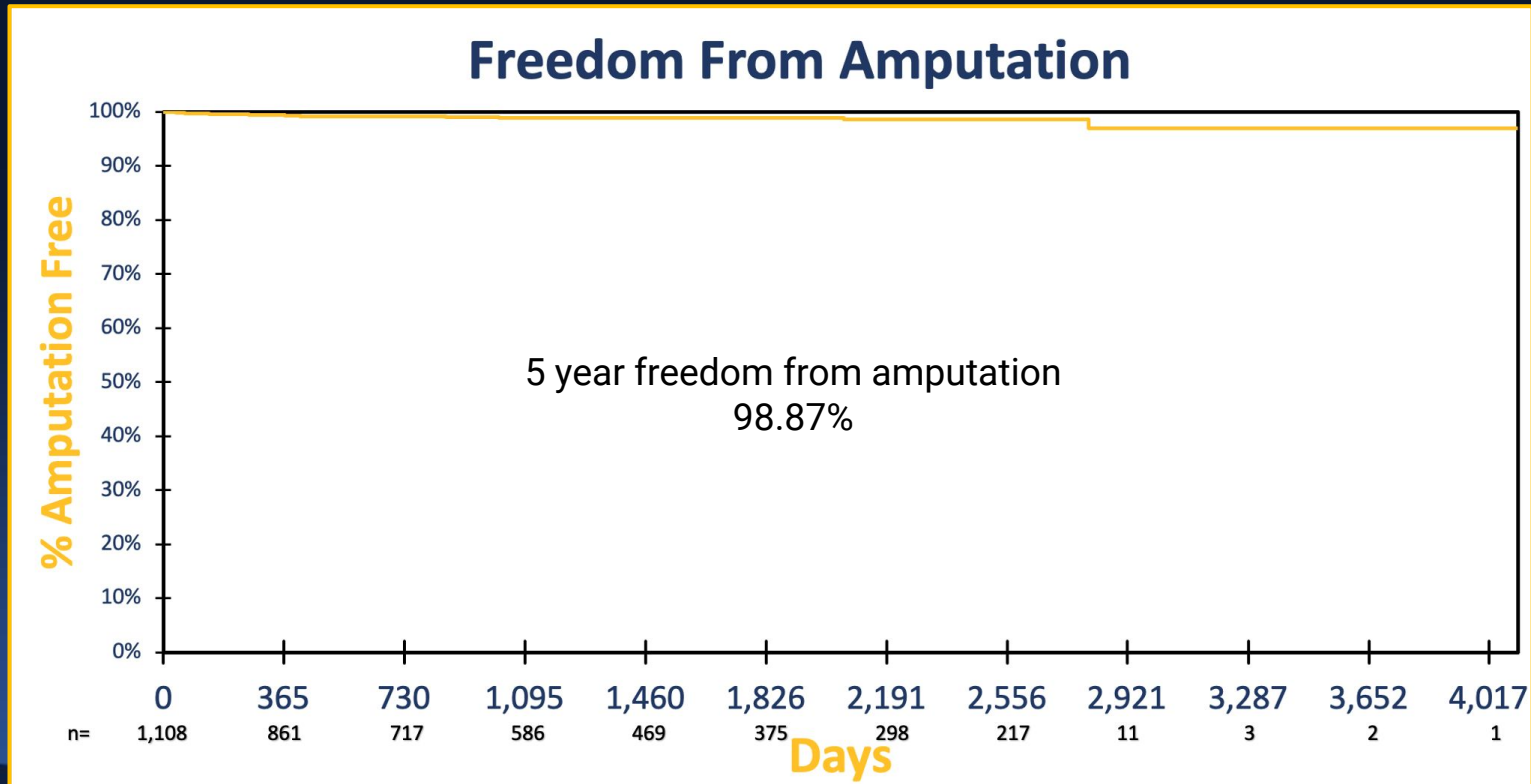
		Total (n=1,108)	Index Limb Amputation (n=12)	No Index Limb Amputation (n=1,096)	Index Death (n=177)	No Index Death (n=931)
Age (y)		72.4±10.3	72.3±10.3 (12)	72.4±10.3 (1,096)	77.7±7.6 (177)	72.3±10.3 (931)
Sex						
	Male	586 (52.9%)	7/12 (58.3%)	577/1,096 (52.7%)	98/177 (55.4%)	486/931 (52.2%)
	Female	522 (47.1%)	5/12 (41.7%)	515/1,096 (47.0%)	80/177 (45.2%)	440/931 (47.3%)
Race						
	Asian	17 (1.5%)	0	17/1,096 (1.6%)	1/177 (0.6%)	18/931 (2.0%)
	Black	340 (30.7%)	6/12 (50.0%)	334/1,096 (30.5%)	37/177 (21.0%)	303/931 (32.6%)
	Hispanic	259 (23.4%)	0	259/1,096 (23.6)	29/177 (16.4%)	230/931 (24.7%)
	White	445 (40.2%)	6/12 (50.0%)	439/1,096 (40.1%)	106/177 (60.0%)	339/931 (36.4%)
	Declined	20 (1.8%)	0	20/1,096 (1.8%)	2/177 (1.13%)	18/931 (1.9%)
Comorbidities	CAD	308 (27.8%)	2/12 (16.7%)	306/1,096 (28.0%)	83/177 (47.0%)	225/931 (24.2%)
	Hyperlipidemia	352 (31.8%)	3/12 (25.0%)	349/1,096 (31.8%)	64/177 (36.2%)	288/931 (31.0%)
	Diabetes	433 (39.1%)	5/12 (41.7%)	428/1,096 (39.1%)	73/177 (41.2%)	360/931 (39.0%)
	Smoker	472 (42.6%)	6/12 (50.0%)	466/1,096 (42.5%)	84/177 (47.5%)	388/931 (42.0%)
	Hypertension	702 (63.4%)	7/12 (58.3%)	695/1,096 (63.4%)	117/177 (66.1%)	585/931 (63.0%)
	COPD	109 (9.9%)	1/12 (8.3%)	108/1,096 (10.0%)	40/177 (22.6%)	69/931 (7.4%)
	CKD	46 (4.2%)	0	46/1,096 (4.2%)	17/177 (9.6%)	29/931 (3.1%)

# Results: Kaplan Meier Curve

## Freedom From Death

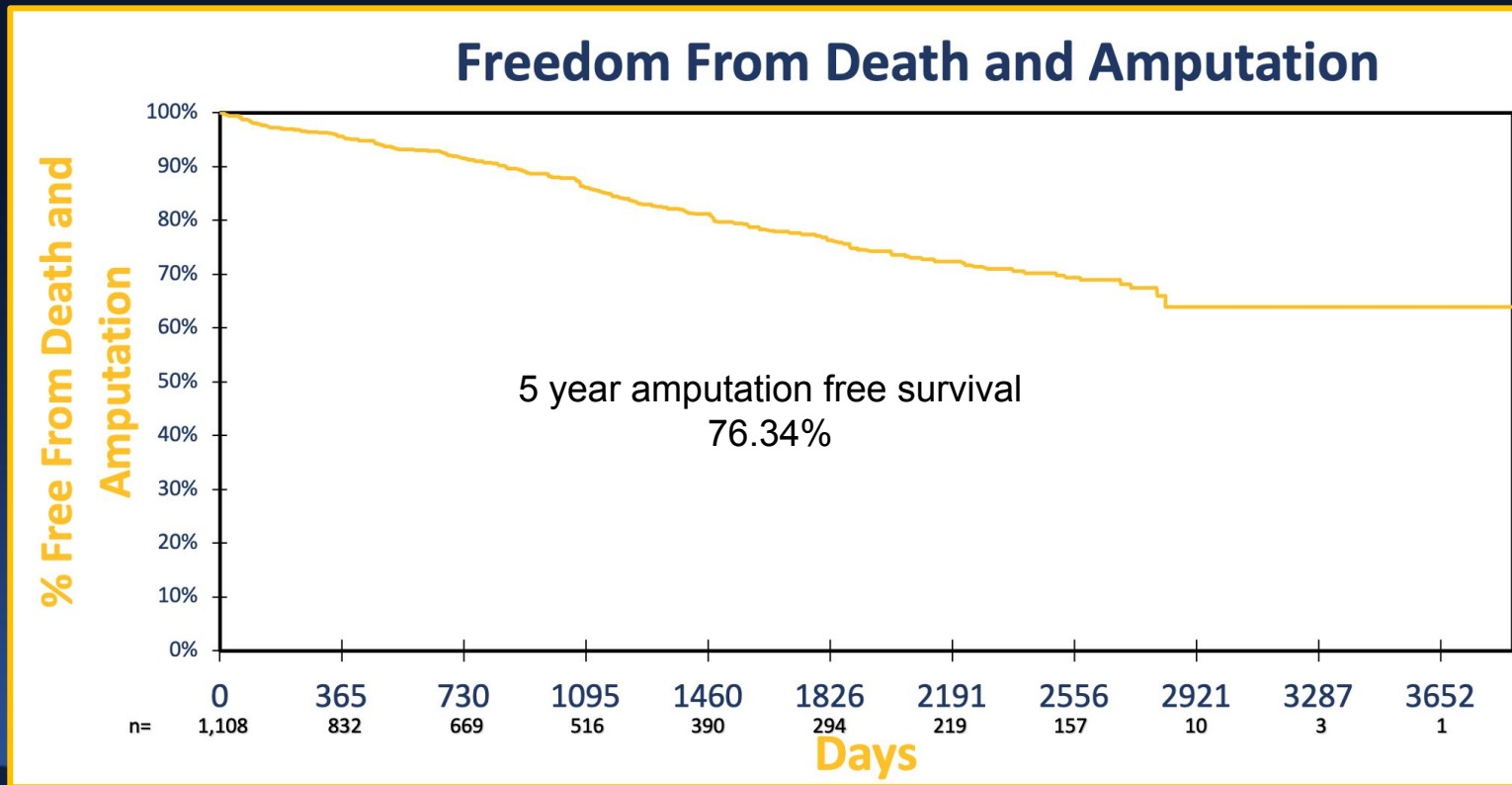


# Results: Kaplan Meier Curve Freedom From Amputation



# Results: Kaplan Meier Curve

## Freedom From Death & Amputation



# Conclusions

- Among patients with severe PAD from primarily **underserved communities**, TPA for revascularization is associated with excellent **long-term survival** and **freedom from amputation**
- Further research is required to understand the full impact of timely and safe revascularization on limb outcomes, longevity, and quality of life.