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Real-life clinical outcomes with the use of an ultrathin sirolimus-eluting stent in Sweden: A report from the Swedish coronary angiography and angioplasty registry

Sergio Buccheri, MD, Giovanna Sarno, MD, PhD, David Erlinge, MD, PhD, Bo Lagerqvist, MD, PhD, Per Grimfjärd, MD, Nils Witt, MD, PhD, Ole Fröbert, MD, PhD, Jonas Persson, MD, PhD, Felix Böhm, MD, PhD, Stefan James, MD, PhD

How was the study executed?

SCAAR registry

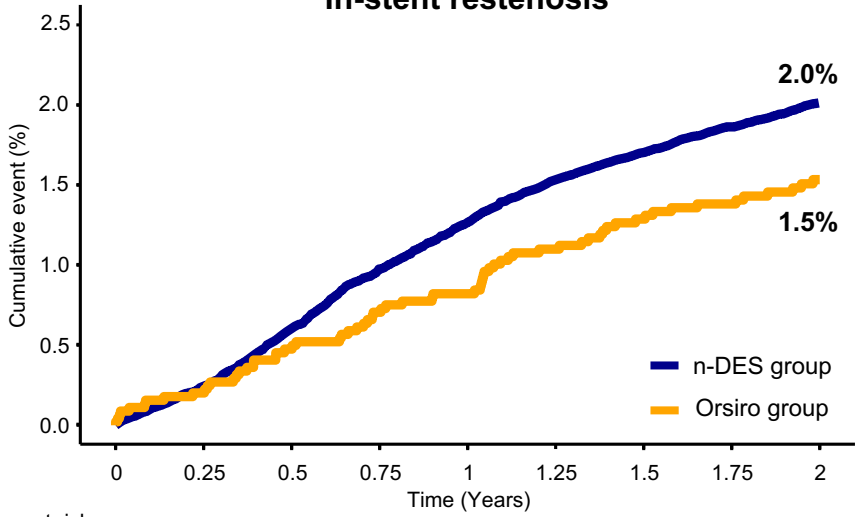
We sought to assess the performance of a **sirolimus-eluting ultrathin DES** (Orsiro, Biotronik AG, Bülach) in a large cohort of consecutive patients undergoing PCI in Sweden.

All patients in this study were registered in the **Swedish Coronary Angiography and Angioplasty Registry (SCAAR).**

SCAAR is a nationwide, prospective, multicenter registry which collects the clinical and procedural characteristics of *all* consecutive patients undergoing PCI in Sweden.

Outcomes of interest: all-cause death, myocardial infarction, definite stent thrombosis, clinically relevant restenosis and target lesion revascularization by PCI up to two years.

What are the essential results?



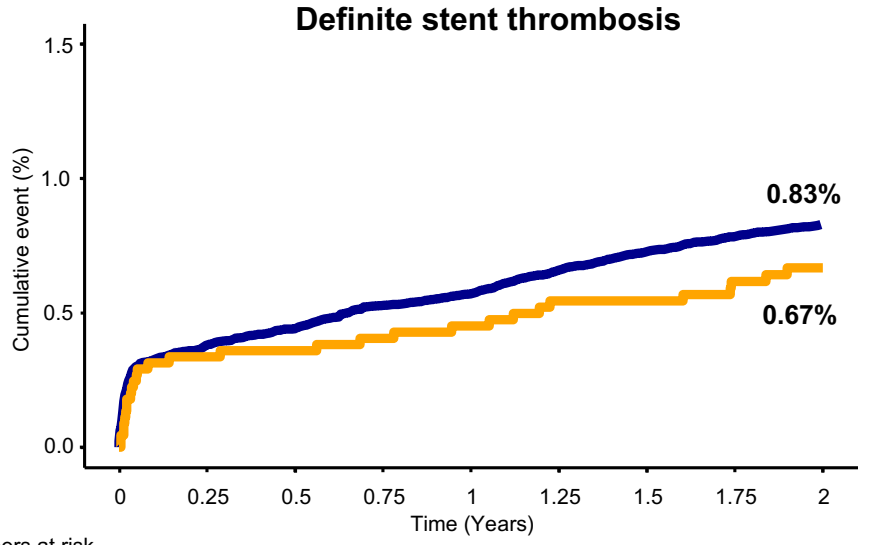
Numbers at risk

N-DES group	69,570	66,992	66,245	65,539	64,926	64,302	63,754	61,424	57,914
Orsiro group	4,561	4,378	4,342	4,305	4,278	4,227	4,189	4,036	3,741

Cumulative number of events

N-DES group	3	164	408	653	846	1,021	1,131	1,234	1,325
Orsiro group	1	9	21	31	36	48	56	60	66

Adjusted HR 0.81, 95% CI 0.63-1.03; p=0.09



Numbers at risk

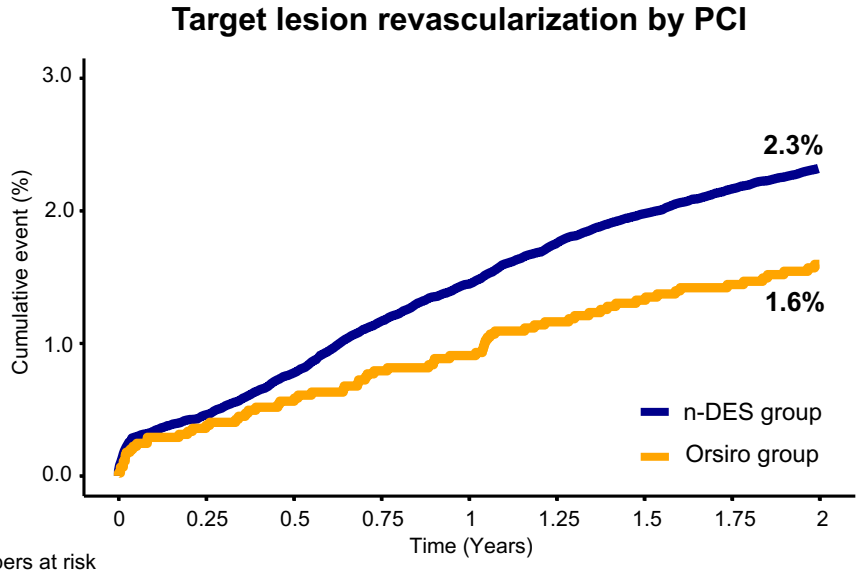
N-DES group	69,570	67,101	66,510	65,933	65,418	64,883	64,379	62,070	58,578
Orsiro group	4,561	4,385	4,357	4,326	4,300	4,253	4,219	4,066	3,768

Cumulative number of events

N-DES group	15	260	301	359	387	445	490	527	553
Orsiro group	0	15	16	18	20	24	24	27	29

Adjusted HR 0.90, 95% CI 0.55-1.46; p=0.66

What are the essential results?



Numbers at risk

N-DES group	69,570	67,082	66,403	65,729	65,150	64,548	64,007	61,684	58,183
Orsiro group	4,561	4,384	4,354	4,319	4,294	4,249	4,212	4,059	3,759

Cumulative number of events

N-DES group	25	316	528	788	974	1,179	1,323	1,444	1,538
Orsiro group	1	17	25	35	40	51	58	63	69

Adjusted HR 0.75, 95% CI 0.60-0.94; p=0.013

Why is this important?

To date, there is a paucity of data regarding the performance of **ultrathin DES in the real world.** Moreover, clinical outcomes beyond one year have not been systematically collected.

In this large nationwide analysis with a follow-up extended up two years, **Orsiro, a sirolimus-eluting ultrathin DES** was associated with low rates of definite stent thrombosis, numerically lower rates of in-stent restenosis and a significantly lower risk of target lesion revascularization as compared to other n-DES.

These findings **corroborate the results of randomized clinical trials** showing a potential incremental clinical benefit with ultra-thin metallic DES use during PCI.

The essentials to remember

Why?

There is a paucity of data regarding the performance of ultrathin DES platforms in the real world.

What?

This was a nationwide, registry-based analysis looking at the comparative performance of modern DES in the real world.

How?

We included a large cohort of consecutive patients undergoing PCI with modern generation DES in Sweden.

What are the results?

After addressing confounding, an ultrathin sirolimus-eluting DES use during PCI was associated with low rates of definite ST, restenosis and a significantly lower risk of target lesion revascularization by PCI.

Why is this important?

Our results corroborate the emerging evidence showing incremental benefits with ultrathin DES use during PCI.