



INSTITUT
CARDIOVASCULAIRE
PARIS
SUD

Mailles ultrafines:Quelle(s) limite(s) ?

Bernard Chevalier

ICPS

Massy/Quincy

France

In the last year, I received research grants or speaker fees or I am consultant for: Colibri, Medtronic, Terumo. I am currently minor shareholder & general director of CERC (CRO)

L'origine

50x100 vs 140x100

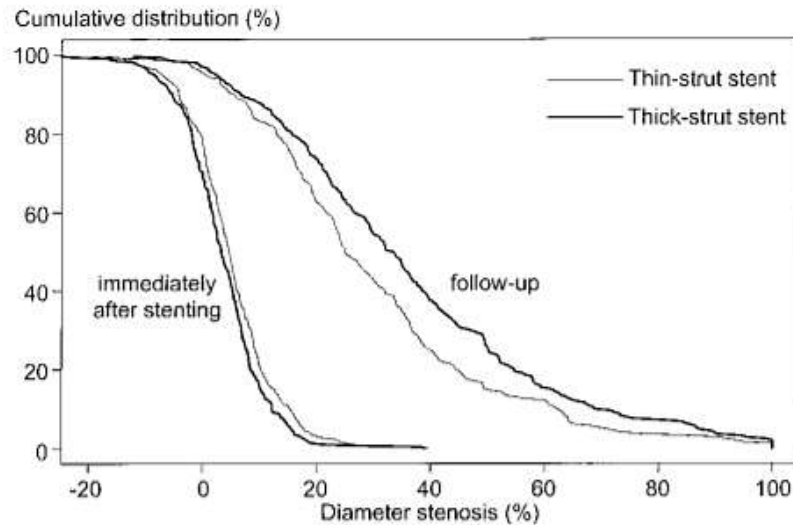


Figure 1. Cumulative distribution curves of diameter stenosis immediately after procedure and at 6-month follow-up angiography in both study arms. Although final result in thin-strut group was less optimal than that achieved in thick-strut group (rightward displacement of curve of diameter stenosis immediately after stenting, $P=0.03$), diameter stenosis at follow-up was significantly reduced in thin-strut vs thick-strut group (leftward displacement of respective curve, $P=0.002$).

50x100 vs 140x130

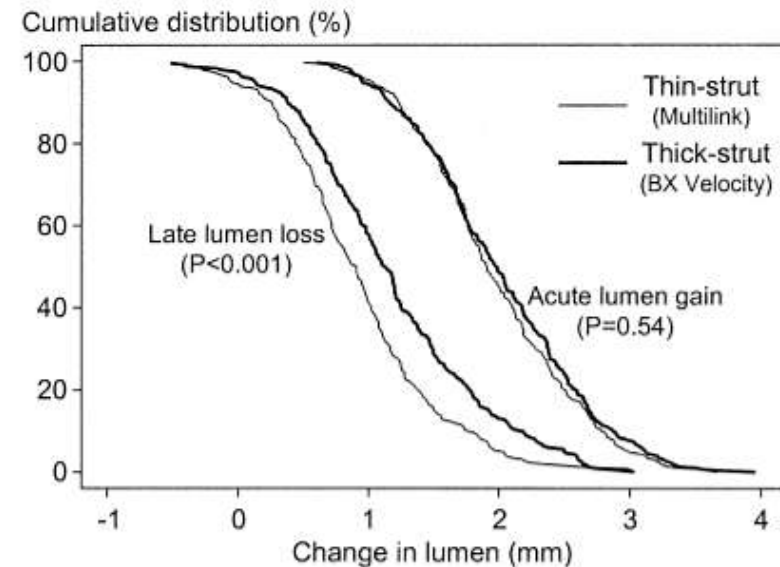
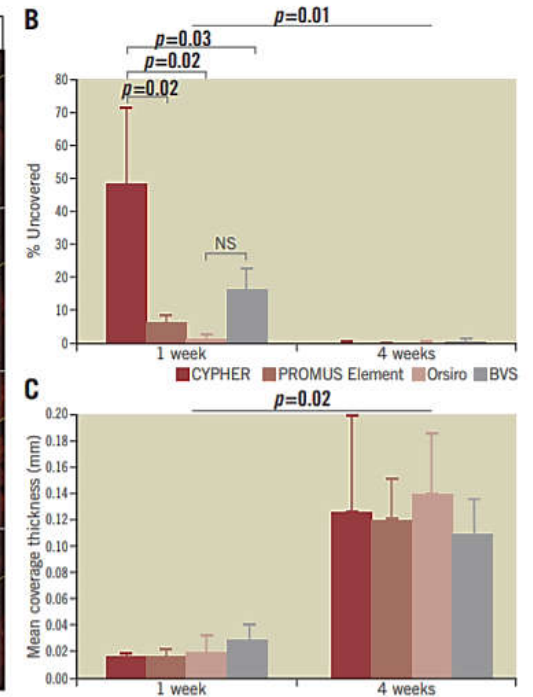
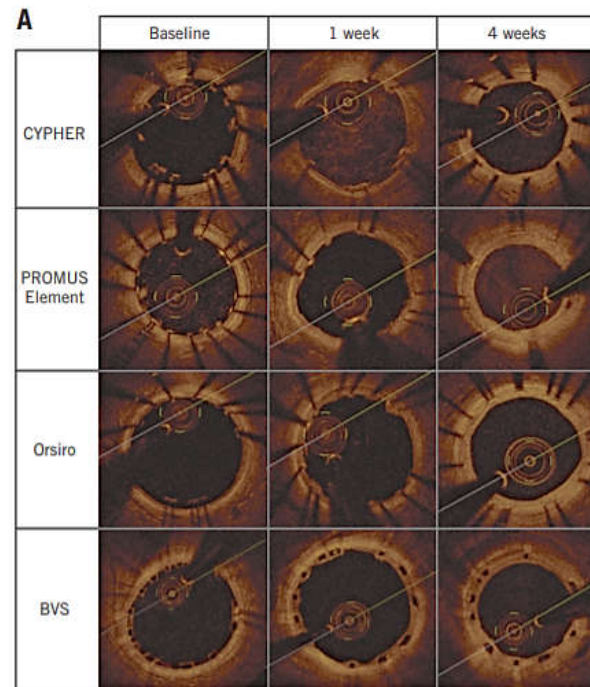
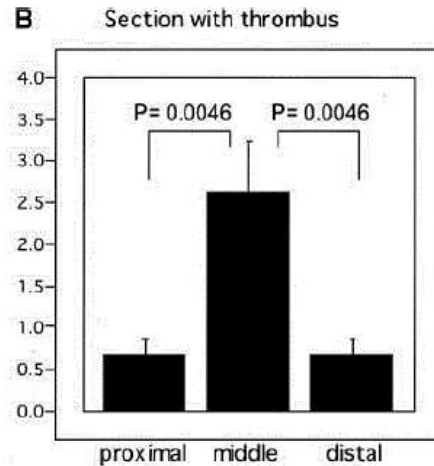
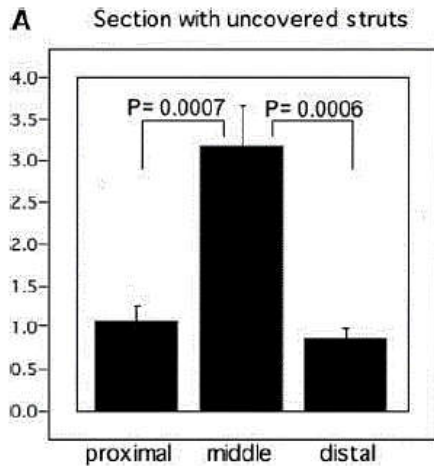


Figure 1. Cumulative distribution curves of early ("acute") lumen gain (enlargement of lumen achieved by stenting and measured immediately after the procedure) and late lumen loss (lumen narrowing occurred during the period between intervention and follow-up angiography at 6 months). Note that similar early results (as indicated by the curves depicting early lumen gain) do not necessarily translate into similar results at 6 months (as indicated by the curves depicting late lumen loss).

Kastrati et al Circulation 2001; Pache et al JACC 2003

De la resténose à la thrombose



Modèle animal: moins d'adhésion plaquettaire, moins d'inflammation

Finn et al Circulation 2007, Lee et al Eurointervention 2016

120+

DES 1° / 2° génération

80

DES actuels

60

DES fins: Orsiro ≤ 3 mm, Mistent, Supraflex, BioMime

Un seul critère?

Epaisseur de maille

Largeur de maille

Forme de maille

Distance interstrut

Ratio metal/artère

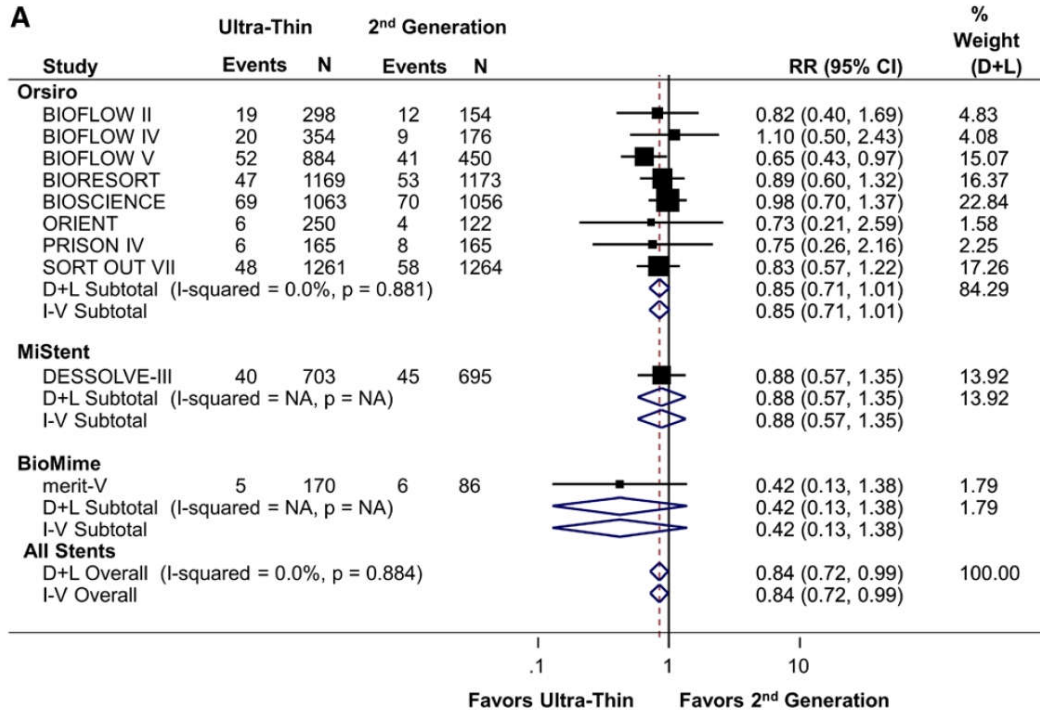
Drogue

Concentration tissulaire

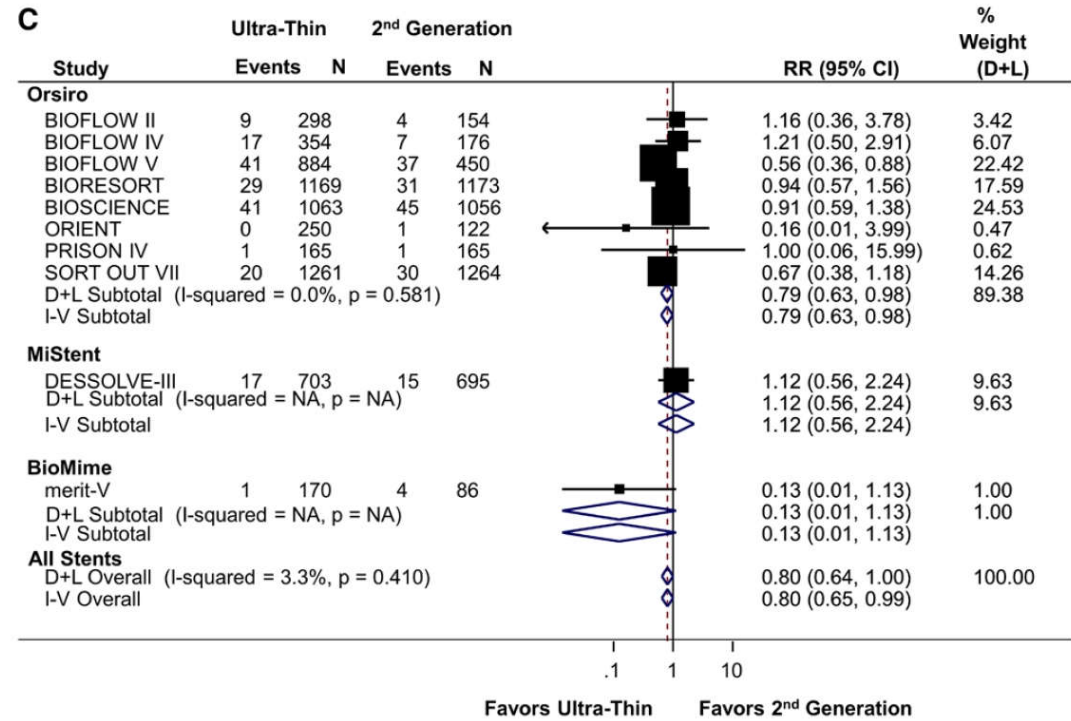
Durée d'élution

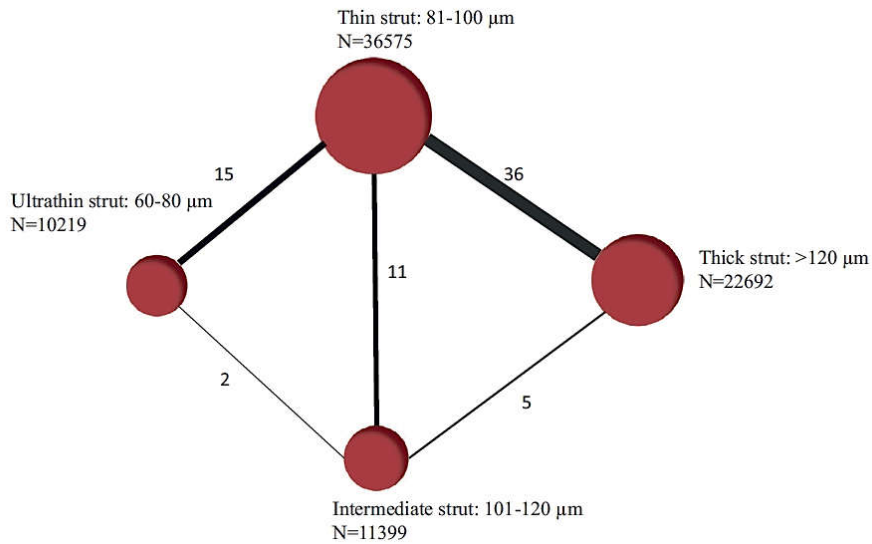
Biocompatibilité du polymère

TLF

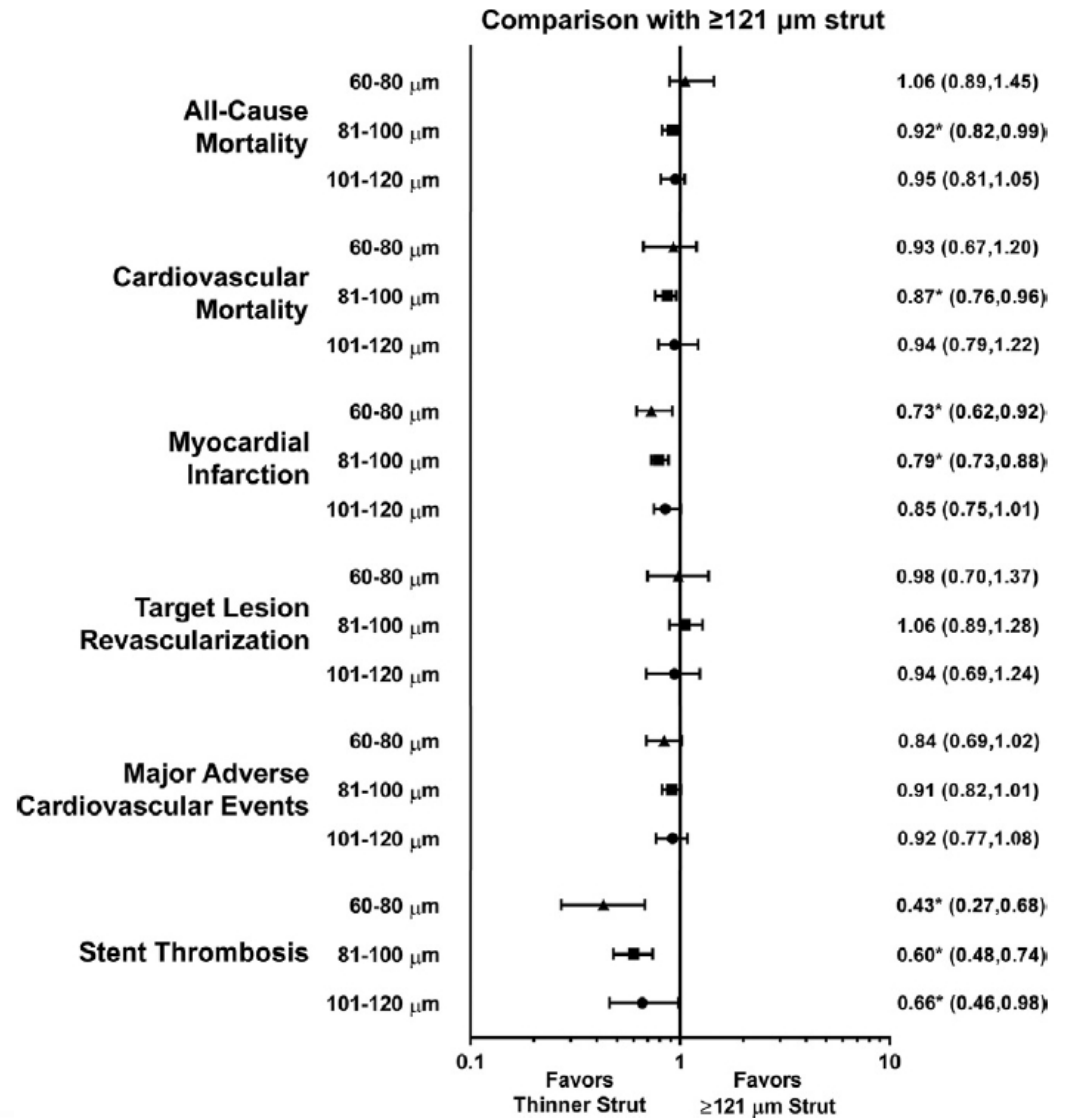


MI

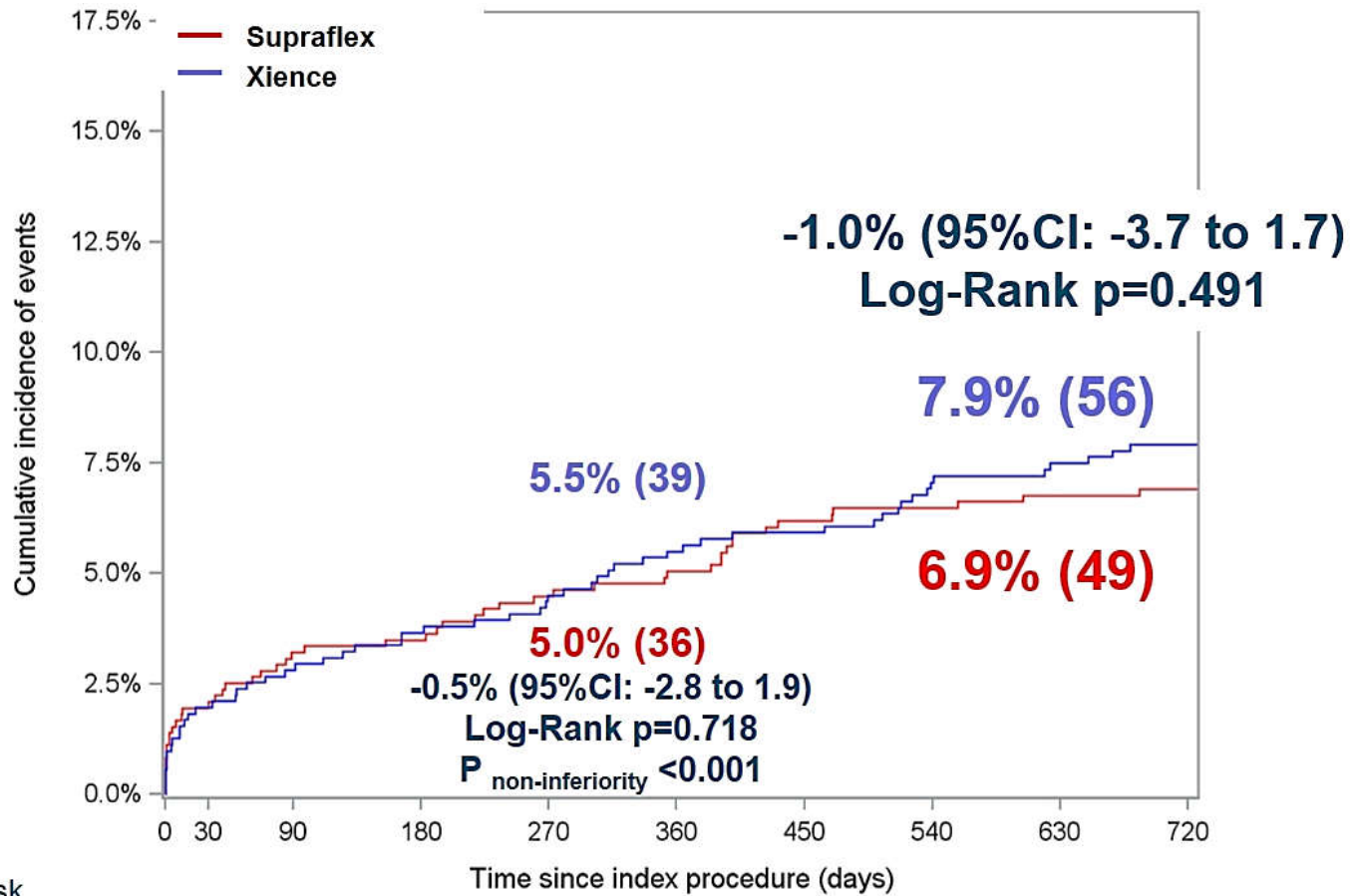




M Iantorno Am J Cardiol 2018



TALENT trial

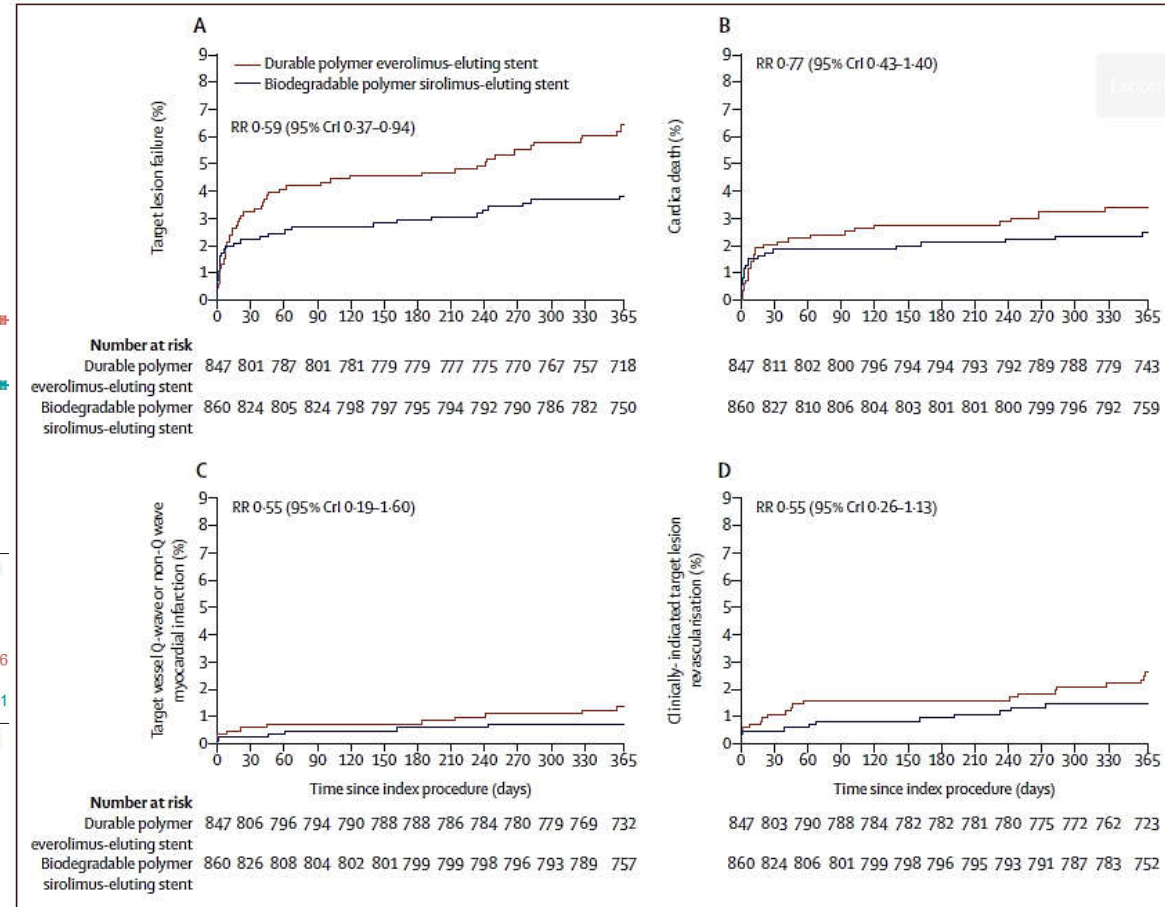
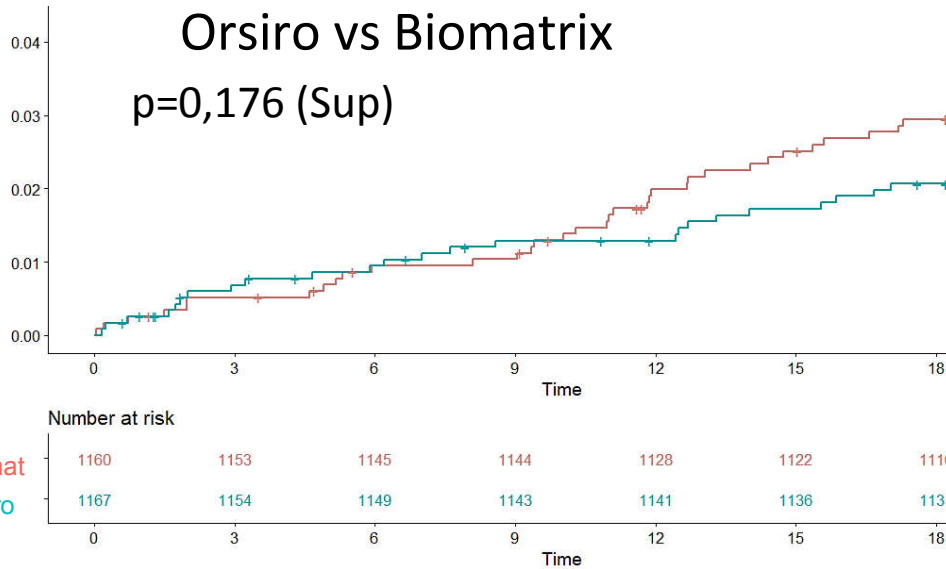


At risk	0	30	90	180	270	360	450	540	630	720
Supraflex	720			686		668		651		648
Xience	715			682		667		652		641

BIOSTEMI

TLF BIODEGRADE Study Orsiro vs Biomatrix

p=0,176 (Sup)

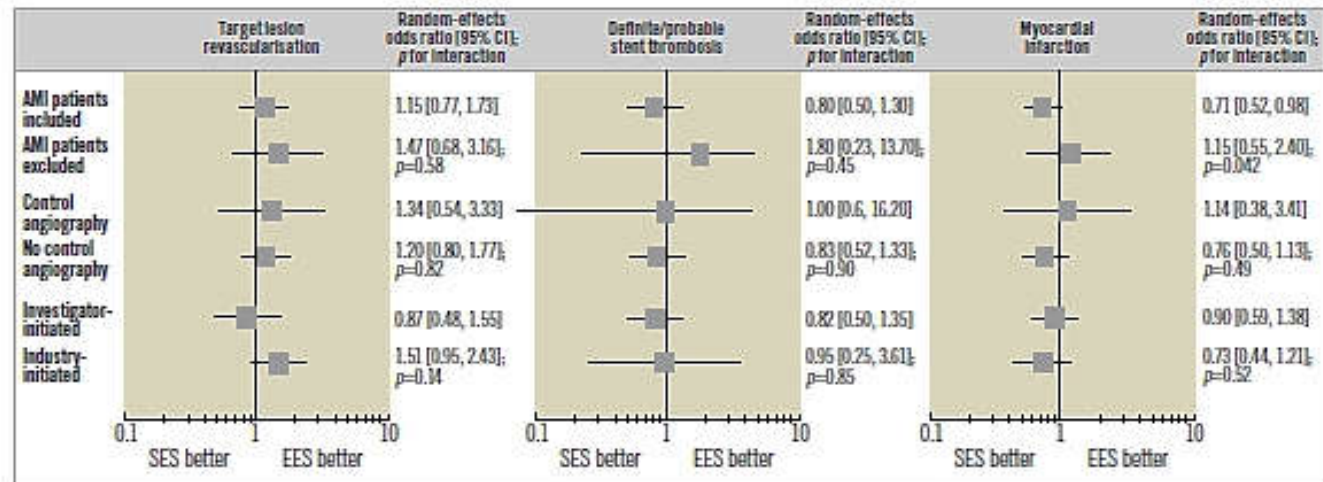
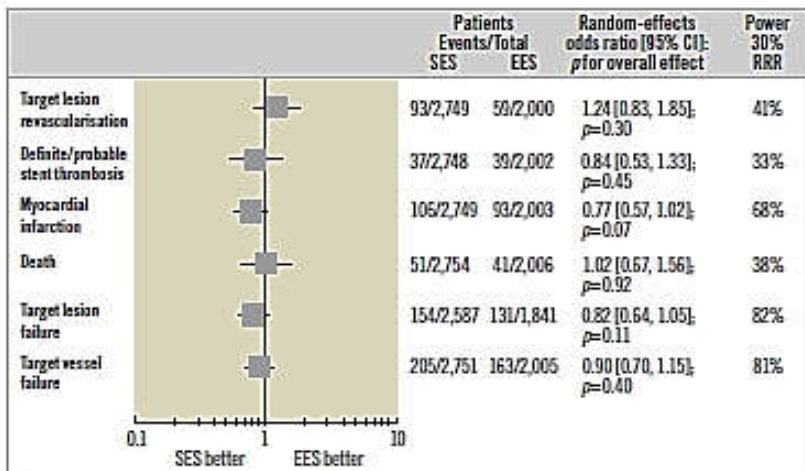


In-Ho Chae et al. TCT 2019

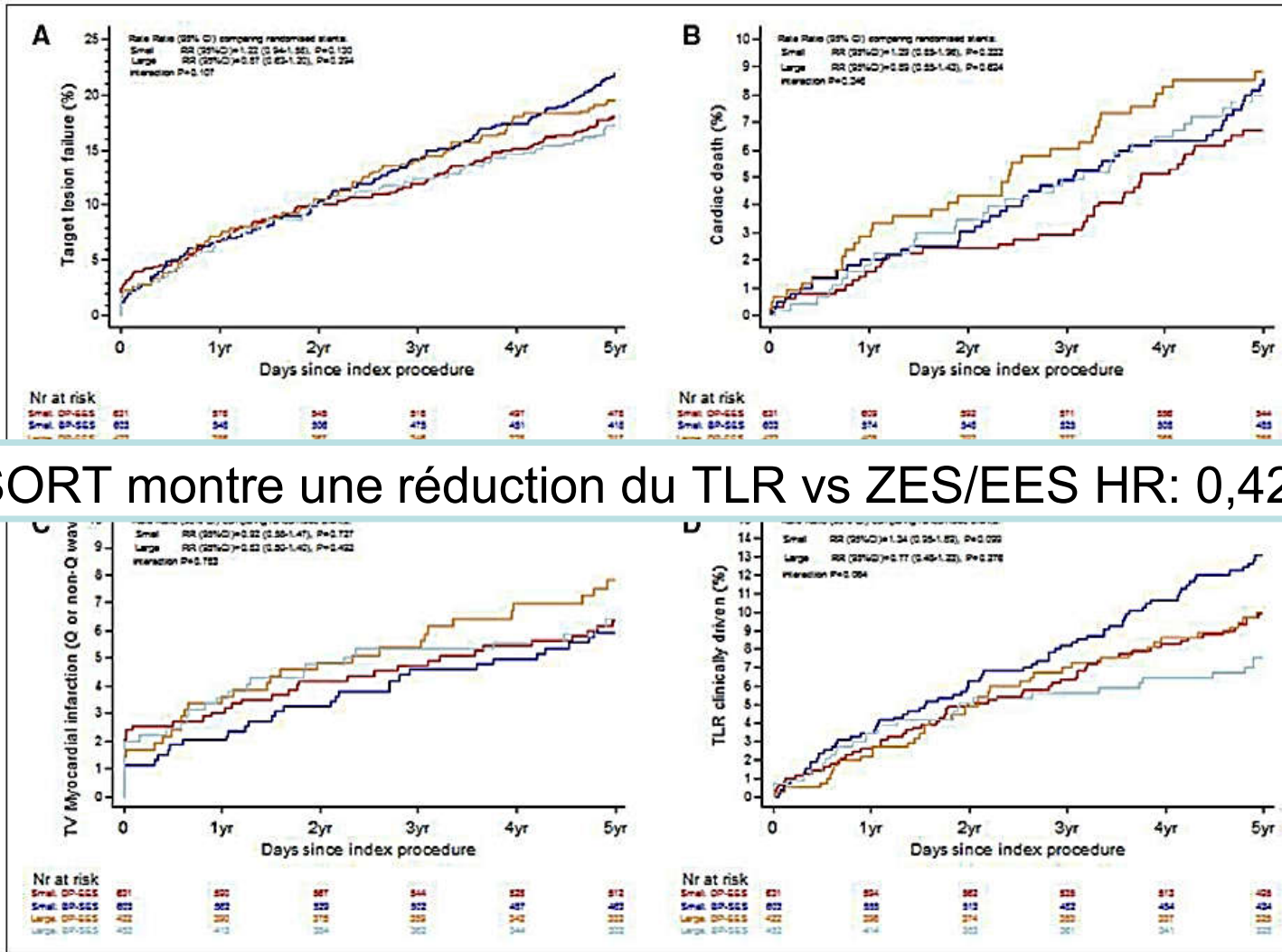
J Iglesias & O Muller Lancet 2019

Effet Orsiro?

BIOFLOW II, IV, V, BIOSCIENCE, ISAR-ORSIRO OCT, PRISON IV: 4853 pts



60 ou 80?



BIORESORT montre une réduction du TLR vs ZES/EES HR: 0,42 p=0,02

J Iglesias et al
Circ CV Int 2019

RA Buiten et al
JAMA Cardio 2019

En pratique clinique

Conformabilité

Profil

Refranchissement

Perméabilité des branches

Force radiale

Compression longitudinale

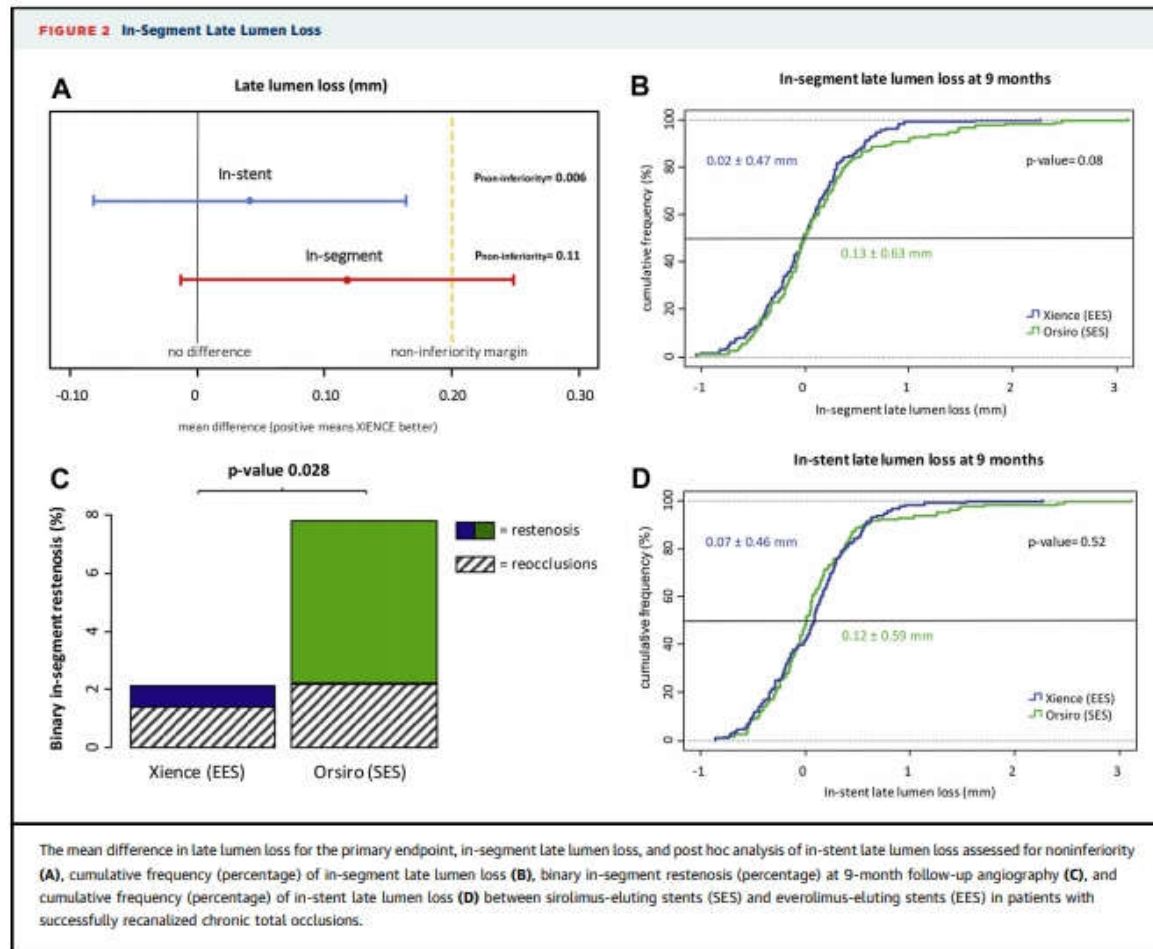
Fracture

Prolapsus

TALENT

Procedure success (per patient)	95.6% (673/704)	<	98.3% (695/707)	-2.7% (-4.5 to -0.9%)	0.003
--	---------------------------	-------------	---------------------------	------------------------------	--------------

PRISON IV



Que retenir?

- Possible que les mailles ultrafines s'associent à moins d'IDM et de thrombose
- Possible que ce ne soit pas la finesse des mailles qui en soit la cause (effet Orsiro?)
- Possible que les mailles ultrafines ne soient pas adaptées à toutes les lésions