PLACE

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BIFORCAZIONI

PROVISIONAL STENTING: SIMPLE CROSSOVER OR SB OPENING ?

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Declaration for COI

Gioel Gabrio Secco,

I have the following potentially relevant conflict of interests:

Consulting, research grants, travel reimbursement, speaker honorarium:

- St Jude Medical – Abbott Vascular
- Biotronik
- Boston Scientific
- SIS Medical
- Philips Volcano corp
- Teleflex
- Orbusneich

Proctoring:

- Terumo
- Asahi
- CSI

BACKGROUND

- Coronary bifurcations remain a challenge for interventional cardiologist with lower procedural success rate and increased long term adverse event;
- PCI affecting a bifurcation are encountered in 15-20% of cases in routine clinical practice;
- Bifurcation PCI can often be resource-demanding due to the use of multiple guidewires, balloons and stents;
- Stent implantation in the MB may lead to acute impairment of coronary blood flow in the SB;
- The real clinical relevance of a SB is hard to standardize:
  - SB diameter, length and distribution:
  - Angle between MB/SB
  - LVEF

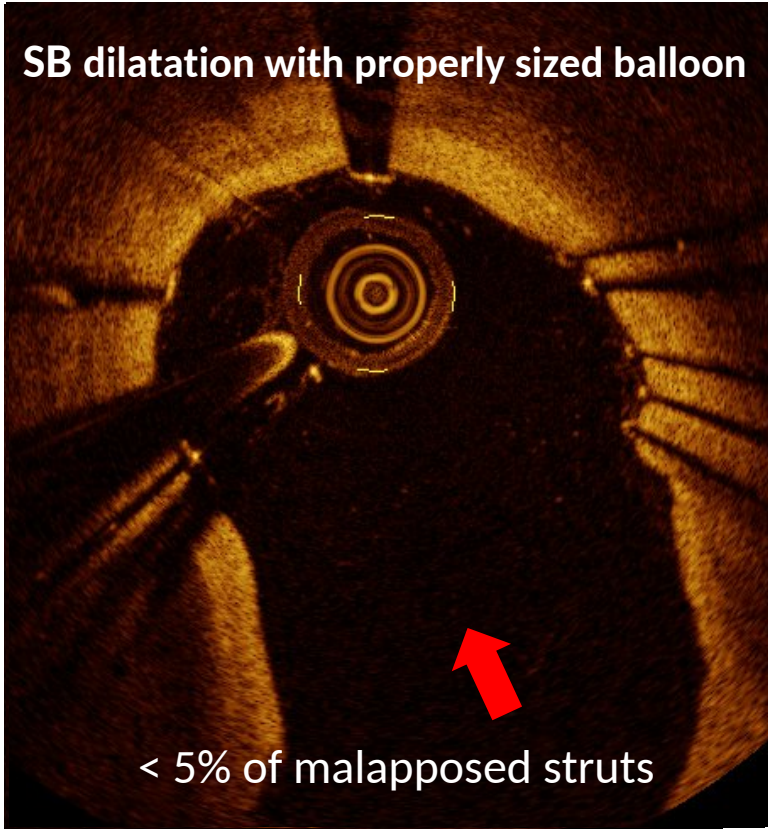
BACKGROUND

- Regardless the stenting technique, the initial step for a successful bifurcation PCI start with a good understanding of the anatomy:
  - Assessment of the three diameters of a bifurcation
  - Assessment of the lesion length and distribution
  - Assessment of the bifurcation angle ad SB ostium.
- Elective SB wiring is mostly recommended in all cases
  - Jailed wire may serve as a marker for rewiring
  - SB wiring reduce the bifurcation angle
  - May improve SB patency after MB stenting
  - In urgent case a small balloon may be advanced over the jailed wire (in case of impossibility of SB rewiring)
  - Jailed wire may serve as an anchor to increase the back up

BACKGROUND

- Provisional stenting of the SB is the universally accepted gold standard, while there is still controversy on the role of KB dilatation;
- The dilatation of the SB ostium after MV stenting appears a logical step to improve apposition and facilitate recrossing but is often performed only when severe ostial narrowing and slow flow develops in the SB;
- The **technical complexity** of recrossing the struts with a wire and balloon is probably part of the explanation for the lack of enthusiasm for routine side branch dilatation.

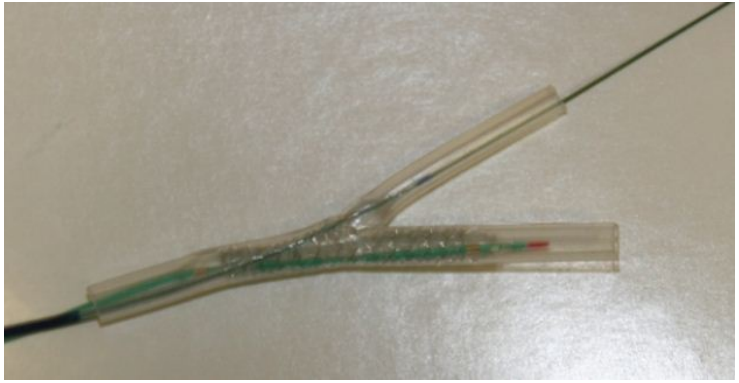
Dilatation of SB: *in vivo*

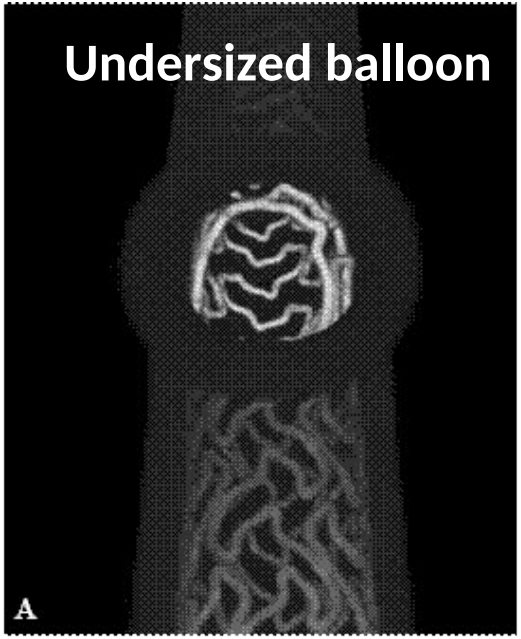


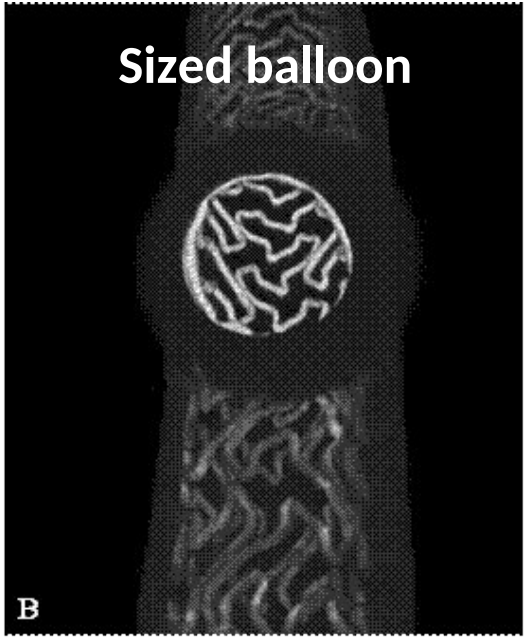
Dilatation of SB: *in vitro*

	Und B	S. B
OSTIUM AREA STENOSIS	24.5 %	7.5%
MALAPP. STRUTS	32%	4.3%

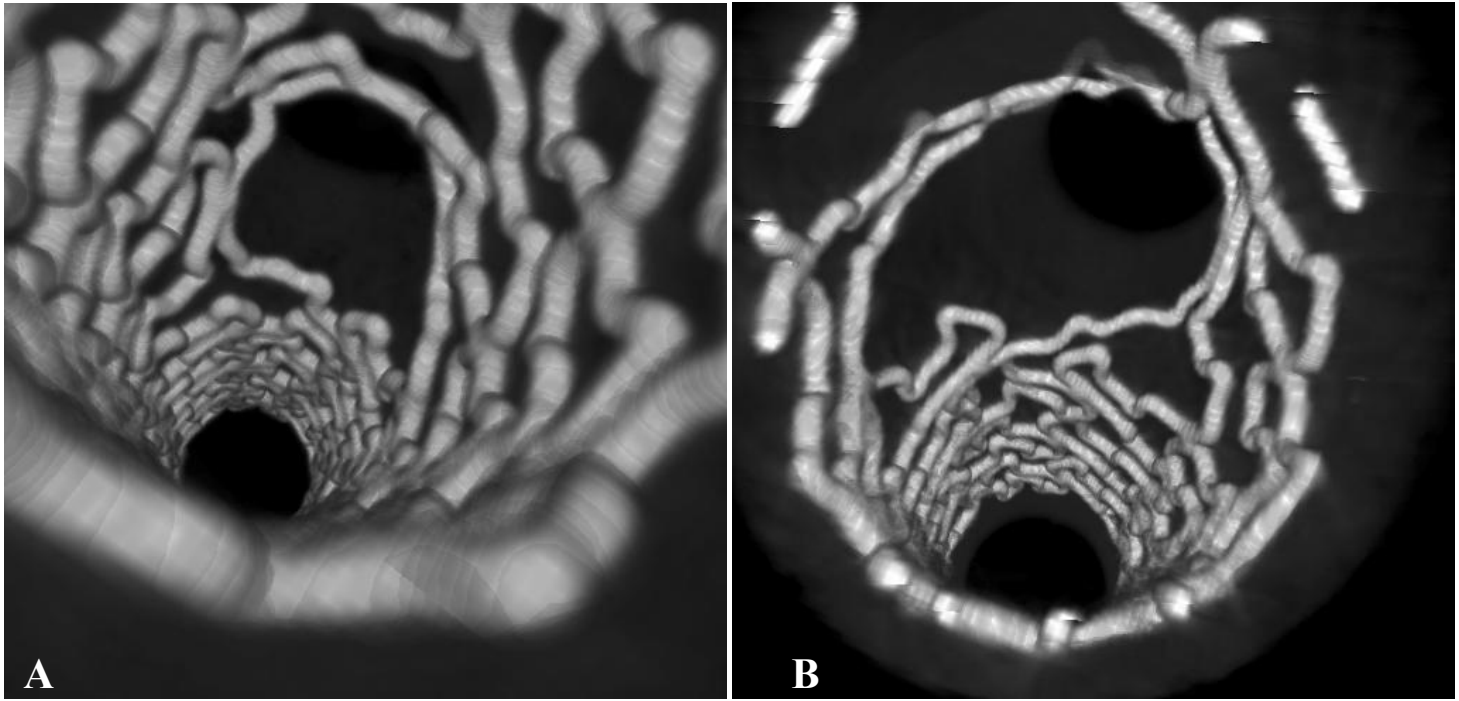
Silicon model of coronary Bifurcation:
MV = 3.5 mm;
SB = 2.5mm;
MV/SB angle = 45°





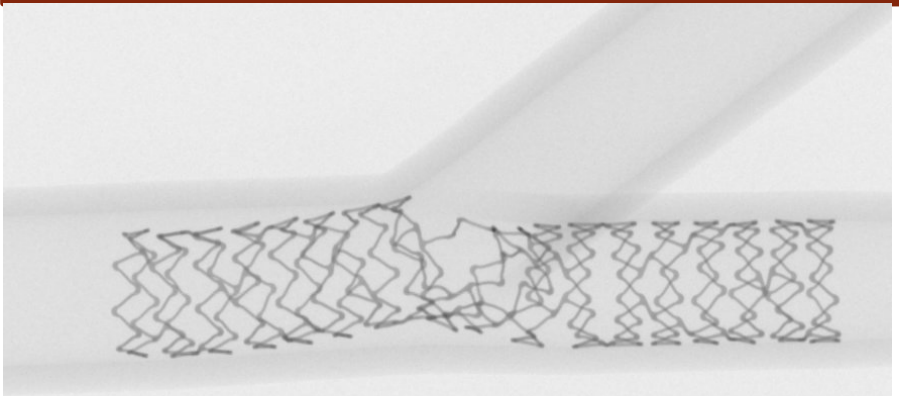


Dilatation of SB: *in vitro*

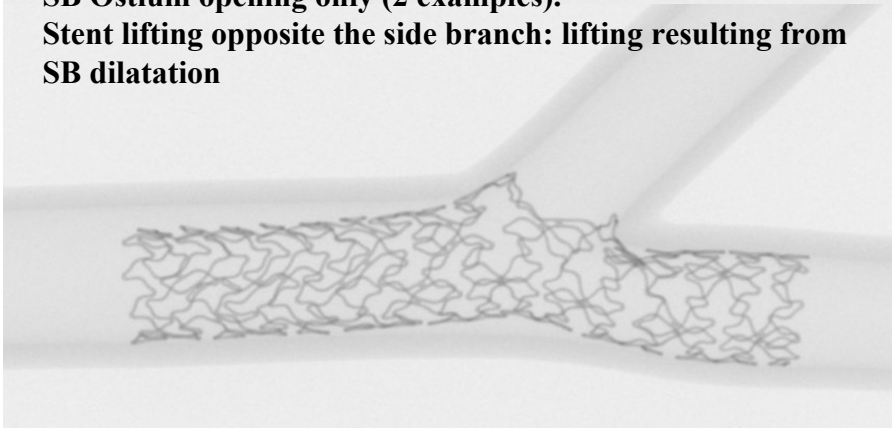


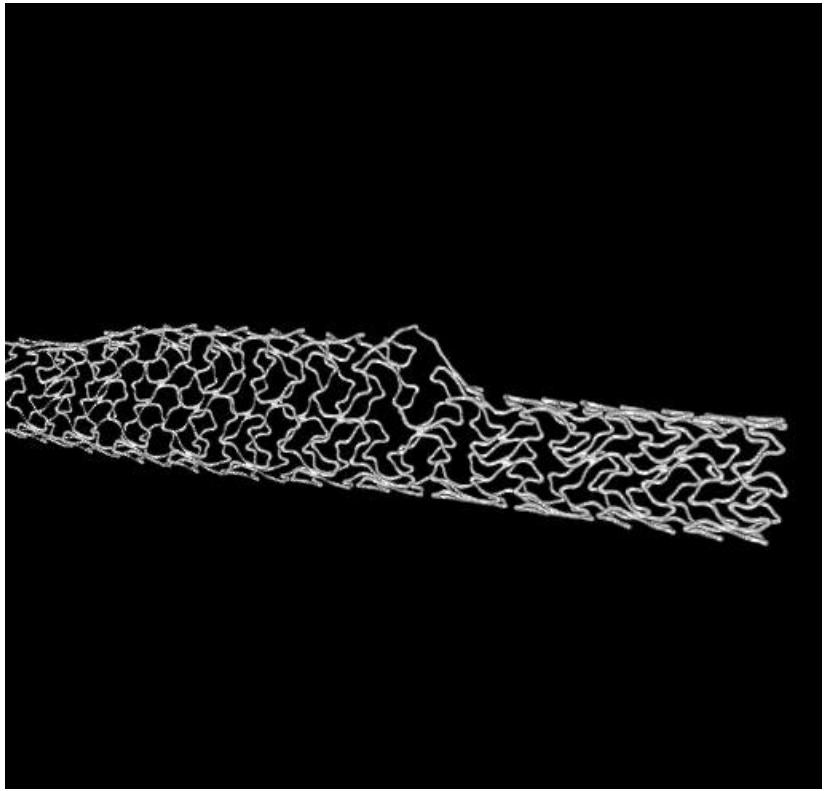
SB Ostium opening in a 3.0 Taxus stent with a conventional undersized PCTA balloon (A) and with a conventional properly sized balloon. (B)

Dilatation of SB: *in vitro with final KB*

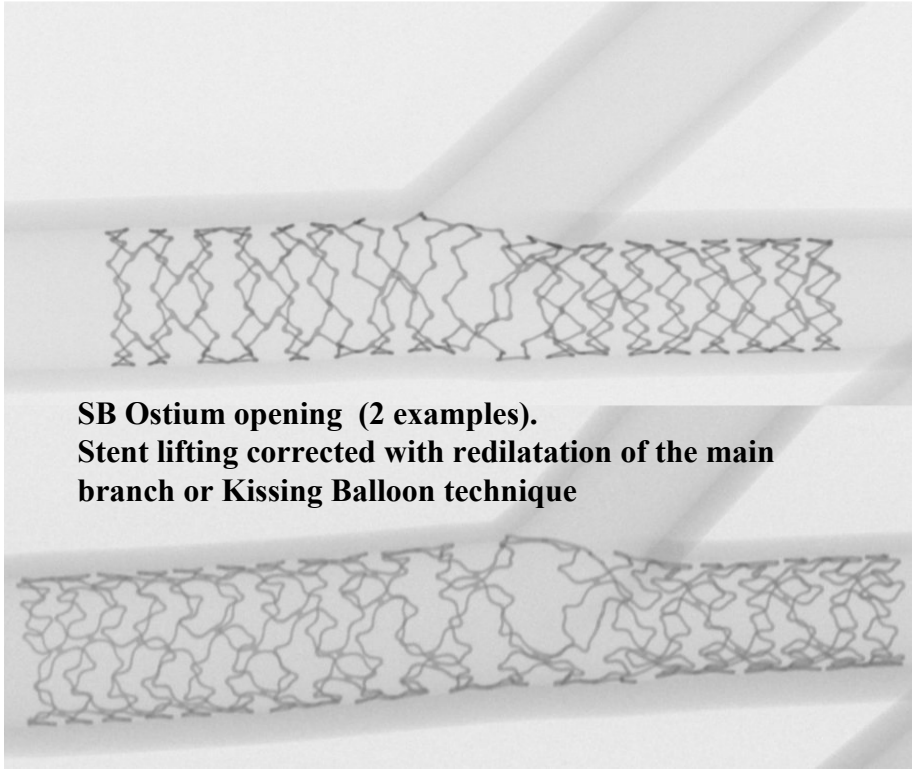


SB Ostium opening only (2 examples).
Stent lifting opposite the side branch: lifting resulting from SB dilatation

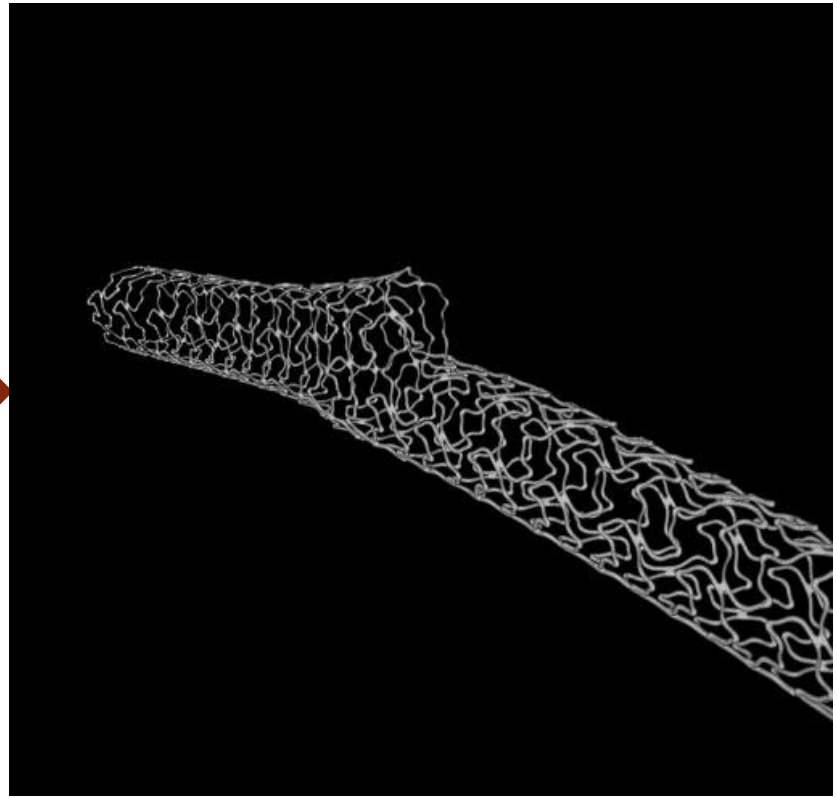




Dilatation of SB: *in vitro*



SB Ostium opening (2 examples).
Stent lifting corrected with redilatation of the main branch or Kissing Balloon technique



THANKS!

Gioel Gabrio Secco ha aggiunto una nuova foto.

24 mar 2010 ·

Natural History Museum, new development of stent design usig Micro CT scan (e dalla mia espressione si intuisce lontanamente come sia andato l'esperimanto!!!!)

Commenti: 2

Mi piace Commenta Condividi