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Importance of GC

- Special devices
- Micro Catheter
- Guide Wire
- Guiding Catheter
Most important factors of GC for Complex PCI

◆ Back up support
◆ Coaxial Engagement
◆ Anti Heat Deformation
◆ Safety
◆ Maneuverability

These factors are essential for stable procedure, especially in long, complex cases.
Guiding Catheter Size Influence

<table>
<thead>
<tr>
<th>5-6 Fr guides</th>
<th>7-8 Fr guides</th>
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<tbody>
<tr>
<td><strong>PROS</strong></td>
<td><strong>CONS</strong></td>
</tr>
<tr>
<td>- Small arterial puncture</td>
<td>- Larger arterial puncture</td>
</tr>
<tr>
<td>- Permit active support</td>
<td>- Less visualization</td>
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<tr>
<td>- Less contrast</td>
<td>- Less back-up force</td>
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<tr>
<td>- Smaller inner lumen</td>
<td>- Pressure damping (w/o SH)</td>
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<tr>
<td>- Less visualization</td>
<td>- More contrast</td>
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<tr>
<td>- Less back-up force</td>
<td>- Radial approach by specific sheath.</td>
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</table>
Dampening of Arterial Pressure

Only diastolic pressure: Ventricularization
Both systolic and diastolic pressures: Dampened pressure

→ GC with side hole is strongly recommended in complex cases.
Selection of tip shape

LAD → Back-up type (EBU, XB, SPB, etc) → Short-tip Judkins
Selection of tip shape

A long segment of the shaft of the back-up type catheter rests against the contralateral aortic wall whereas only a short segment of the Judkins left does so. On the other hand, the direction of the GC is different according to the GC shape.
Selection of tip shape

- LAD ostial stumpless CTO
- Short tip Judkins left 3.5 SH
- LAD ostial stumpless CTO
Selection of tip shape

LAD ostial stumpless CTO

LAD ostial stumpless CTO
Selection of tip shape

LAD

Antegrade puncture with IVUS guidance
Selection of tip shape

LAD

Short tip JL3.5 SH

JL4.0

SB
Selection of tip shape

Balloon anchoring in SB can make bigger support power.
Selection of tip shape

LAD proximal CTO
Short tip JL 3.5 SH

Back-up type (EBU, SPB, etc)
Selection of tip shape

- LAD
- Back-up type (EBU, XB, SPB, etc)
- Short-tip Judkins
Selection of tip shape

LAD

PWT with SB balloon anchoring
Selection of tip shape

LAD

POAB with SB balloon anchoring
Selection of tip shape

- LCX
- Back-up type (EBU, XB, SPB, etc)
- AL >1.5 for rotablator or CTO

TCTAP2019
Selection of tip shape

LCX calcified lesion

Calc (+++)

AL > 1.5 for rotablator or CTO
Selection of tip shape

LCX  for rotablator or CTO
Selection of tip shape

LCX

AL > 1.5 for rotablator or CTO
Selection of tip shape

LCX

RA 1.5mm
AL 1.5SH
Selection of tip shape

LCX

AL > 1.5 for rotablator or CTO
Selection of tip shape

- RCA
- Back-up type (AL, SAL, AR, HS, etc)
- Judkins
  Case with ostial lesion
Selection of tip shape

LCX

Judkins

Case with ostial lesion
Selection of tip shape

RCA
Back-up type (AL, SAL, AR, HS, etc)

Judkins Case with ostial lesion

TCTAP2019
Selection of tip shape

- RCA back-up type (AL, SAL, AR, HS, etc)
- Judkins
- Case with ostial lesion

Proximal RCA diffuse lesion
Selection of tip shape

Judkins Case with ostial lesion

Proximal RCA diffuse lesion
Selection of tip shape

RCA Back-up type (AL, SAL, AR, HS, etc.)

Judkins Case with ostial lesion
Selection of tip shape

RCA

Anything could not be crossed even with balloon anchoring
Selection of tip shape

RCA

Back-up type (AL, SAL, AR, HS, etc)

Judkins Case with ostial lesion
Selection of tip shape

RCA

Judkins
Case with ostial lesion
JR 4.0 → AL1
Selection of tip shape

- RCA
- Back-up tip type (AL, SAL, AR, etc.)
- Judkin style
  Case with ostial lesion
Guide Extension Catheters

- Special devices
- Micro Catheter
- Guide Wire
- Guiding Catheter
Guide Extension Catheters

The GuidoLiner is delivered through standard guide catheters, resulting in an inner diameter that is approximately one French size smaller than the guide catheter.

Guidezilla Guide Extension Catheter – Construction Overview

- A: 120 cm Proximal hypotube shaft
- B: 0.057” (1.45 mm) Inner-diameter
- C: Stainless steel collar embedded in polymer
- D: Proximal marker band
- E: 1x1 Braid
- F: Hydrophilic coating
- G: Distal marker band
- H: Atraumatic tip

<table>
<thead>
<tr>
<th>GUIDEZILLA</th>
<th>GuideLiner® V2*</th>
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<tbody>
<tr>
<td>Size</td>
<td>6 F (1.7 mm)</td>
</tr>
<tr>
<td>Proximal Shaft</td>
<td>Stainless steel hypotube</td>
</tr>
<tr>
<td>Coating</td>
<td>Hydrophilic (Bioslide)</td>
</tr>
<tr>
<td>I.D.</td>
<td>0.057” (1.45 mm)</td>
</tr>
<tr>
<td>O.D.</td>
<td>0.066” (1.68 mm)</td>
</tr>
<tr>
<td>Distal Guide Length</td>
<td>25 cm</td>
</tr>
<tr>
<td>Collar Type</td>
<td>Stainless steel collar embedded in polymer</td>
</tr>
<tr>
<td>Marker Band</td>
<td>1 Distal MB at tip 1 MB distal to collar</td>
</tr>
</tbody>
</table>
Guide Extension Catheters

Mid RCA CTO with graft failure
Guide Extension Catheters
Guide Extension Catheters
Reverse CART with guide extension catheter
Guide Extension Catheters

Reverse CART with guide extension catheter
Guide Extension Catheters

Rendezvous in antegrade GC
Guide Extension Catheters

GE advancement with balloon anchoring
Guide Extension Catheters

Stenting with GE
Guide Extension Catheters

Stenting with GE
Guide Extension Catheters

Stenting with GE
Guide Extension Catheters
Summary

- Guiding catheter can make our procedure simple by appropriate use.

- Selection of GC is associated with making stronger back up force and setting co-axial position of the system.

- Appropriate GC selection is an important point to prevent dampened pressure and dissection by the tip of GC, especially, in case with an ostial lesion.

- Balloon anchoring in SB or guide extension catheter can cover poor back up force of GC.

- However, in diffuse or calcified lesion, distal balloon anchoring should be needed to deliver the guiding extension catheter itself.