TYPE OF WIRES

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OUTLINE

• Introduction
• History
• Characters
• Structure
• Classification
• Choice of wires
• Manipulation
A guide wire is a device used to
• Track into the vessel
• Access & cross the lesion
• Atraumatic
• Provide support for interventional devices

INTRODUCTION

HISTORY

Old balloons had closed end with wire attached to its tip
Then balloons had open tip with wire crossing it from distal to the proximal end

HISTORY

Then, monorail system

HISTORY
CHARACTERS

- Torque control (Best is 1:1 torque)
- Tactile feedback “feeling of what the other end is doing”
- Flexibility
- Support
- Trackability: ability to follow the tip
- Prolapse tendency (Less is better)
- Radioopacity (Shorter is better, why?)

STRUCTURE

- Core
  - Diameter of the core
  - Material (stainless steel, nitinol)
  - Design (core to tip, two pieces)
Tip

- Tip load (3, 4.5, 6, 9, 12… etc.)
- Radio-opaque length

Coat / Covering

- Hydrophilic
- Hydrophobic more friction but more stable
CLASSIFICATION OF WIRES

- By tip flexibility.
- By tip load.
- By device support.
- By coating tip.

- By tip flexibility
  - Floppy (ASAHI soft, BMW)
  - Intermediate (PT2MS, ASAHI IM)
  - Standard/high (Miracle, Conquest)
CLASSIFICATION OF WIRES

- By tip load
  - 3 g
  - 4.5 g
  - 6 g
  - 9 g
  - 12 g

- By device support
  - Light PT2LS
  - Moderate PT2MS
  - Extra PT2ES
Coating type

- Hydrophilic Pilot, Fielder, Run-through
- Hydrophobic BMW

Choice of Wires

- For a focal lesion (Floppy, soft)
- Calcified & CTO use hydrophilic & be cautious (Pilot, Gaia)
- Bifurcational avoid hydrophilic
- Tortuous anatomy “Buddy wire technique”
1\textsuperscript{st} step
Tip shaping

2\textsuperscript{nd} step
Steering the vessel

MANIPULATION OF WIRES

TIP SHAPING

One curve for simple angles
Two curves for larger angles
MANIPULATION OF WIRES
STEERING

• Go slow
• Small alternating rotations but not excessive rotation
• Different angiographic views
• Dye injection

TAKE HOME MESSAGE

• Get used to all wires & choose your lucky one.

• Carefully choose the wire but do not forget the other factors for successful PCI.
Questions

Thanks