Anchoring guide wire and methods for use

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Technology description

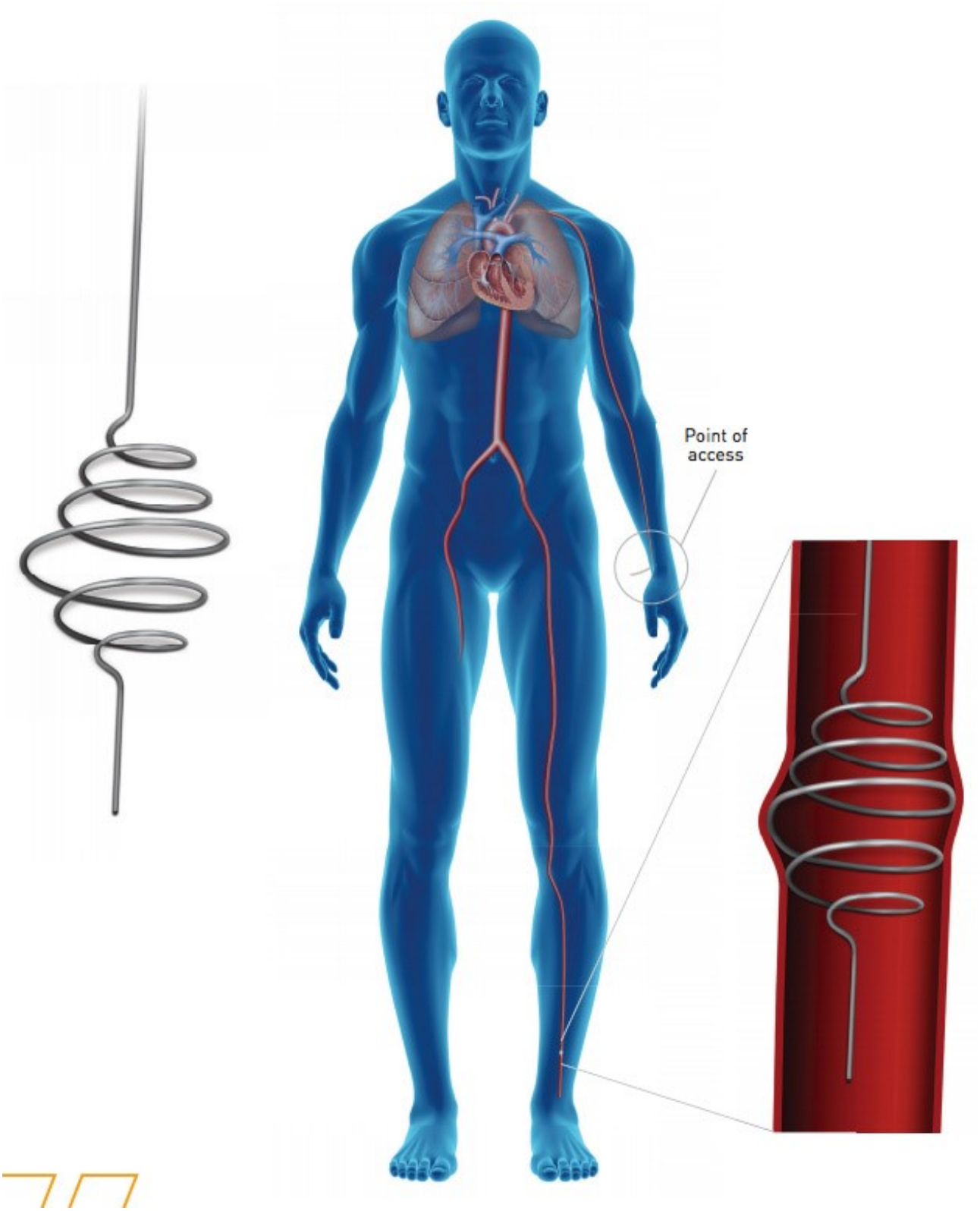
Background

Guide wires are used to navigate vessels to reach a lesion or vessel segment. Once the tip of the device arrives at its destination, it acts as a guide that larger catheters can rapidly follow for easier delivery to the treatment site.

When performing procedures that have a guide wire in a branch vessel and a stiff catheter is advanced over said guide wire, the wire may pop out of the branch vessel. One example of this is when stenting the renal arteries in a thoracoabominal aortic aneurysm. Another example is performing peripheral artery procedures from a radial access. Radial access provides many benefits over a standard groin access but there are two main challenges; treatment device length and confidence in delivering these therapeutic treatments. Entering through the arm poses a number of challenges with wire support, placement and the ability to access hard to reach vessels.

Technology Overview

Sanford Health has a technology that allows for a guide wire, made of shape memory nitinol, to be deployed in a vessel and anchor the guide wire within that vessel location. This particular technology has a coiled segment, that when deployed, can secure within a vessel to prevent loss of distal wire placement. This unique feature enables the coil to provide support in tortuous anatomy. The anchoring guide wire can help minimize loss of access while making radial access feasible for newer interventionalist.



Application area

1. The primary application is anchoring a guide wire during a radial access intervention providing additional wire support and placement for access in hard to reach vessels.
2. The secondary application is anchoring in celiac, superior mesenteric, and renal arteries when

treating complex aortic aneurysms.
3. A tertiary application is pace maker placement through the coronary sinus.

Advantages

1. Allows the operator to move focus to another access or device without the wire retracting from the target vessel.
2. Allows a guide wire to be anchored in the peripheral vessels to enable peripheral interventions from a radial access.
3. Saves valuable procedural and catheterization time by preventing slip out and subsequent reaccessing of difficult anatomy.
4. Open design allows for continuous perfusion during a procedure.

Institution

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