

Exitable Lumen Guide Wire Sheath

Background

The most common etiology of stenosis or narrowing of cardiovascular and peripheral vasculature is atherosclerosis. Other causes of stenosis include injury, syphilis and rheumatoid arthritis. Coronary arteries, in particular coronary arteries containing multiple bifurcations, are common sites for stenosis. The treatment modalities for stenotic vessels include chemotherapy, radiation, coronary artery bypass, angioplasty and rotational cutting devices to remove plaques and laser. Each of these treatment methods has its own risk and the safest, and the most effective, treatment of stenotic vessels is percutaneous angioplasty, with PTCA being the most commonly performed percutaneous angioplasty. PTCA can be performed with or without stent deployment and can also be used to treat bifurcation lesions. The treatment of bifurcation lesions carries the risk of restenosis and impaired access to the side branch due to caging of the stent. To gain access to bifurcating lesions, multiple guide wires are being commonly used. Such medical procedures, however, are complicated by the crossing and recrossing of wires during the procedure, resulting in delays in the completion of the medical procedure. In some instances, the loss of stents in the coronary vessels resulting from crossing of wires could require costly open heart surgical procedures. **The present invention relates to a device for use in multiple branch lesions in the coronary and peripheral vasculature.**

Description of the Technology

The invention consists of a sheath containing single or multiple exitable lumens for guiding medical devices during cardiovascular procedures. The sheath contains individually compartmentalized exitable lumens and an exit for the wire. The lumen provides path for individual wires to travel during the procedure. This arrangement results in separation of the wires during the procedure, eliminating the problem of entanglement of wires.

Advantages

- Prevents entanglement of wires during cardiovascular procedure.

Applications

- For use in multi-guide wire techniques in cardiovascular procedures
- For use in dilation and stenting of a bifurcation lesion
- For protecting access to the side branch in bifurcation lesion

Patent Status

- United States Patent issued on June 8, 2004
- Patent Number: 6,746,411 B2

Licensing Opportunity

- This technology is available for exclusive license.

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