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Berez et al.

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(54) **PROCEDURES FOR VASCULAR OCCLUSION**

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- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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A61F 2/90 (2013.01); **A61F 2/95** (2013.01);
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See application file for complete search history.

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(57) **ABSTRACT**

A method of reducing blood flow within an aneurysm includes: injecting a contrast agent into a blood vessel including an aneurysm; deploying an occlusion device across the aneurysm; producing an image of the aneurysm including the contrast agent; and withdrawing the delivery device from the vessel after observing that the aneurysm has been obstructed by a desired amount. The image may be two-dimensional or three-dimensional. Observing that the aneurysm has been obstructed may include determining a degree of obstruction, for example by comparing an area or volume of the contrast agent in a first image and a second image. The desired amount may be a certain degree of obstruction, identification of a shape indicative of stasis such as a flat surface, an approximate hemisphere, a mushroom, or a crescent. If the occlusion device does not achieve the desired amount, a second occluding device may be deployed.

17 Claims, 70 Drawing Sheets

