

port in fluid communication with the suction lumen, the tip portion having a curved structure that provides either at least three curves.

20. The thrombectomy catheter of claim 19 wherein the suction port is located along one of the curves.

21. The thrombectomy catheter of claim 19 wherein the end of the tip portion tapers to a guide exit port.

22. The thrombectomy catheter of claim 19 further comprising a guide port to form a rapid exchange segment.

23. A method for removing thrombus from a vessel of a patient, the method comprising aspirating fluid from the vessel through a suction port in a thrombectomy catheter having a tubular shaft that forms a majority of the length of the catheter and a tip portion comprising the suction port, the tip portion being connected at the distal end of the shaft with an aspiration lumen extending from a suction device to the aspiration port, wherein the tip portion is curved such that the tip portion has a displacement across the vessel at least as large as the vessel diameter such that a section of the tip portion contacts the vessel wall.

24. The method of claim 23 wherein the tip portion has a first configuration and a second configuration that is curved relative to the first configuration and the method further comprising transitioning the tip portion from the first configuration to the second configuration within the patient's vessel.

25. The method of claim 24 wherein the thrombectomy catheter further comprises an actuation device that can be actuated to transition the tip portion from the first configuration to the second configuration.

26. The method of claim 25 wherein the actuation device comprises a guide structure and the distal portion comprises a guide exit port and a distal guide lumen and wherein the transitioning of the tip portion from the first configuration to the second configuration comprises withdrawing a guide structure past the distal guide lumen to release a curved section of the tip portion.

27. The method of claim 25 wherein the actuation device comprises an obturator and a wire connected to the obturator and wherein the transitioning of the tip portion from the first configuration to the second configuration comprises actuating the wire to move the obturator such that the obturator no longer restricts the tip portion from transitioning to the second configuration.

28. The method of claim 23 wherein the suction port is located at the distal end of the catheter.

29. The method of claim 23 wherein the tip portion has a plurality of curves and the suction port is located along one of the curves.

30. The method of claim 29 wherein the tip portion has at least 3 curves.

31. The method of claims 23 wherein the suction port is adjacent a vessel wall within a distance of the wall that is no more than about 10 percent of the vessel diameter.

32. The method of claim 23 wherein suction is applied while moving the catheter.

33. The method of claim 32 wherein moving the catheter comprises moving the catheter in a proximal direction.

34. The method of claim 32 wherein moving the catheter comprises moving the catheter in a circumferential direction.

35. The method of claim 23 further comprising partially occluding the vessel with a structure that extends beyond the natural outer diameter of the catheter.

36. A method for removing thrombus from a vessel of a patient, the method comprising aspirating fluid and/or debris from the vessel through a suction port in a thrombectomy catheter having a tubular shaft that forms a majority of the length of the catheter and a tip portion comprising the suction port, the tip portion being connected at the distal end of the shaft with an aspiration lumen extending from a suction device to the aspiration port, wherein the tip portion is curved to position the suction port adjacent a vessel wall within a distance of the vessel wall that is no more than about 10 percent of the vessel diameter.

37. A thrombectomy catheter comprising a suction device, a proximal portion fluidly connected to the suction device, a tubular shaft attached at its proximal end to the proximal portion, a tip portion at the distal end of the tubular shaft with a continuous suction lumen from the proximal portion to the tip portion, and a partially occluding structure comprising a flap that extends outward from other portions of the catheter or a balloon that extends only partially around the circumference of the catheter, wherein the tip portion comprises a suction port in fluid communication with the suction lumen.

38. The thrombectomy catheter of claim 37 wherein the catheter tip has a curve and the partially occluding structure is on the curve or distal to the curve.

39. The thrombectomy catheter of claim 37 wherein the partially occluding structure is a flat and the flap can be actuated with a pullwire.

40. A method for removing thrombus from a vessel of a patient, the method comprising aspirating fluid from the vessel through a suction port in a thrombectomy catheter having a tubular shaft that forms a majority of the length of the catheter and a tip portion comprising the suction port, the tip portion being connected at the distal end of the shaft with an aspiration lumen extending from a suction device to the aspiration port, wherein flow is partially occluded with a partial occlusion structure that extends from the outer diameter of the catheter.

41. The method of claim 40 wherein the partial occluding structure comprises a flap and the method further comprises actuating the flap from a low profile configuration to an extended partially occluding configuration.

42. The method of claim 40 wherein the partial occluding structure comprises a balloon structure.

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