2500 and facilitate easy movement of the catheter tip. Moreover, even though the stopper 2800 is not provided, the moving distance of the movable member 2200 may be limited by the elastic member 2900, which may prevent various components from being damaged due to excessive movement of the movable member 2200.

Also preferably, the catheter for denervation according to the present disclosure may further include a temperature measuring member (not shown).

In particular, the temperature measuring member may be provided around the electrode 2500 to measure a temperature of the electrode 2500 or around the electrode 2500. In addition, the temperature measured by the temperature measuring member as described above may be used for controlling the temperature of the electrode 2500. Here, the temperature measuring member may be connected to the lead wire 2600 through a separate wire, and the separate wire may extend to the proximal end of the catheter body 2100 through the inner space of the catheter body 2100 and be drawn out of the catheter body 2100.

Meanwhile, even though various embodiments illustrate that the movable member 2200 is provided out of the catheter body 2100, the present disclosure is not limited thereto.

Fig. 22 is a perspective view schematically showing a distal end of a catheter for denervation according to another embodiment of the present disclosure, and Fig. 23 is a cross-sectional view showing the catheter of Fig. 22 along the longitudinal direction. However, features to which the description in relation to the embodiment of Figs. 13 to 21 can be applied will not be described in detail, but different features will be described in detail.

Referring to Figs. 22 and 23, the movable member 2200 may be provided in the

3100 through the inner space of the catheter body 3100 and be drawn out of the catheter body 3100.

Meanwhile, even though various embodiments illustrate that the movable member 3200 is provided out of the catheter body 3100, the present disclosure is not limited thereto.

Fig. 38 is a perspective view schematically showing a distal end of a catheter for denervation according to another embodiment of the present disclosure, and Fig. 39 is a cross-sectional view showing the catheter of Fig. 38 along the longitudinal direction. However, features to which the description in relation to the embodiment of Figs. 27 to 37 can be applied will not be described in detail, but different features will be described in detail.

Referring to Figs. 38 and 39, the movable member 3200 may be provided in the inner space of the catheter body 3100. In addition, the movable member 3200 may move in the lateral direction in the inner space of the catheter body 3100. Here, different from the embodiments of Figs. 27 to 37, the proximal end of the support member 3400 may be connected and fixed to the movable member 3200, and the distal end thereof may be fixed to the terminal 3110 of the catheter body.

In addition, in this embodiment, a configuration for making a difference in distances between the connection points of the support members 3400, for example a step or an inclination, may be formed at the outer surface (the right surface in Fig. 39) of the movable member 3200 and/or the inner surface (the left surface in Fig. 39) of the terminal 3110 of the catheter body.

Since the movable member 3200 is located closer to the proximal end of the catheter in comparison to the catheter body 3100, if an operator pushes the operating

Also preferably, the catheter for denervation according to the present disclosure may further include a temperature measuring member (not shown).

In particular, the temperature measuring member may be provided around the electrode 4600 to measure a temperature of the electrode 4600 or around the electrode 4600. In addition, the temperature measured by the temperature measuring member as described above may be used for controlling the temperature of the electrode 4600. Here, the temperature measuring member may be connected to the lead wire 4700 through a separate wire, and the separate wire may extend to the proximal end of the catheter body 4100 through the inner space of the catheter body 4100 and be drawn out of the catheter body 4100.

Meanwhile, even though various embodiments illustrate that the movable member 4200 is provided out of the catheter body 4100, the present disclosure is not limited thereto.

Fig. 55 is a perspective view schematically showing a distal end of a catheter for denervation according to another embodiment of the present disclosure, and Fig. 56 is a cross-sectional view showing the catheter of Fig. 55 along the longitudinal direction. However, features to which the description in relation to the embodiment of Figs. 43 to 54 can be applied will not be described in detail, but different features will be described in detail.

Referring to Figs. 55 and 56, the movable member 4200 and the intermediate member 4400 may be provided in the inner space of the catheter body 4100. In addition, the movable member 4200 and intermediate member 4400 may move in the lateral direction in the inner space of the catheter body 4100.

In addition, the movable member 4200 may be located close to the proximal end

WHAT IS CLAIMED IS:

1. A catheter for denervation, comprising:

a catheter body extending in one direction to have a proximal end and a distal end and having an inner space formed along the longitudinal direction thereof;

a movable member provided at the distal end of the catheter body to be movable along the longitudinal direction of the catheter body;

an operating member having a distal end connected to the movable member to move the movable member;

a plurality of support members having one end connected to a terminal of the catheter body and the other end connected to the movable member, wherein when the movable member moves to decrease a distance between the terminal of the catheter body and the movable member, at least a partial portion of the plurality of support members is bent so that the bending portion moves away from the catheter body;

a plurality of electrodes respectively provided at the bending portion of the plurality of support members to generate heat; and

a lead wire respectively electrically connected to the plurality of electrodes to give a power supply path for the plurality of electrodes.

2. The catheter for denervation according to claim 1,

wherein the movable member is provided out of the catheter body.

3. The catheter for denervation according to claim 2, further comprising a reinforcing member extending in the longitudinal direction of the catheter body and provided between the catheter body and the movable member,

wherein a distal end of the reinforcing member is fixed to the movable member and a proximal end of the reinforcing member is inserted into a through hole of the catheter body, so that the proximal end of the reinforcing member moves through the through hole of the catheter body according to the movement of the movable member.

4. The catheter for denervation according to claim 1,

wherein the movable member is provided in the inner space of the catheter body, and

wherein the catheter body has an opening through which the bending portion of the support member is drawn out of the catheter body when the support member is bent.

5. The catheter for denervation according to claim 1,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined distance in the longitudinal direction of the catheter body.

6. The catheter for denervation according to claim 5,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by 0.3 cm to 0.8 cm in the longitudinal direction of the catheter body.

7. The catheter for denervation according to claim 5,

wherein at least one of the plurality of support members has a curved portion to define the bending portion according to the movement of the movable member.

8. The catheter for denervation according to claim 5,

wherein at least one of the plurality of support members is pre-shaped to define the bending portion according to the movement of the movable member.

9. The catheter for denervation according to claim 1,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined angle based on a central axis of the catheter body in the longitudinal direction.

10. The catheter for denervation according to claim 1,

wherein the surfaces of the catheter body and the movable member connected to the support member are perpendicular to the longitudinal direction of the catheter body.

11. The catheter for denervation according to claim 1,

wherein the plurality of electrodes generates heat by means of radio frequency.

12. The catheter for denervation according to claim 1,

wherein the catheter body has a guide hole formed in the distal end so that a guide wire moves therethrough.

13. The catheter for denervation according to claim 1, further comprising at least one stopper for limiting a moving distance of the movable member.

14. The catheter for denervation according to claim 13,

wherein at least one stopper is fixed to the operating member.

15. The catheter for denervation according to claim 13,

wherein at least one stopper is fixed to the catheter body.

16. The catheter for denervation according to claim 1, further comprising an elastic member connected to the movable member to give a restoring force with respect to the movement of the movable member.

17. The catheter for denervation according to claim 1, further comprising an end tip made of a composition containing polyether block amide and located at a front surface of the distal end of the catheter body and the movable member.

18. The catheter for denervation according to claim 1,

wherein at least one of the catheter body and the movable member is connected to at least two support members at points which are spaced apart from each other by a predetermined distance in the longitudinal direction of the catheter body.

19. The catheter for denervation according to claim 18,

wherein at least one of the catheter body and the movable member has a step formed at a surface thereof which is connected to the support member.

20. The catheter for denervation according to claim 18,

wherein at least one of the catheter body and the movable member is inclined at a surface thereof which is connected to the support member.

21. The catheter for denervation according to claim 18,

wherein the surface of the catheter body and the surface of the movable member, which are connected to the support member, are matched with each other.

22. The catheter for denervation according to claim 1,

wherein a section of the support member in the width direction has an outer surface length longer than an inner surface length thereof.

23. A denervation apparatus, which includes the catheter for denervation defined in claim 1.

2500 and facilitate easy movement of the catheter tip. Moreover, even though the stopper 2800 is not provided, the moving distance of the movable member 2200 may be limited by the elastic member 2900, which may prevent various components from being damaged due to excessive movement of the movable member 2200.

Also preferably, the catheter for denervation according to the present disclosure may further include a temperature measuring member (not shown).

In particular, the temperature measuring member may be provided around the electrode 2500 to measure a temperature of the electrode 2500 or around the electrode 2500. In addition, the temperature measured by the temperature measuring member as described above may be used for controlling the temperature of the electrode 2500. Here, the temperature measuring member may be connected to the lead wire 2600 through a separate wire, and the separate wire may extend to the proximal end of the catheter body 2100 through the inner space of the catheter body 2100 and be drawn out of the catheter body 2100.

Meanwhile, even though various embodiments illustrate that the movable member 2200 is provided out of the catheter body 2100, the present disclosure is not limited thereto.

Fig. 22 is a cross-sectional view schematically showing a distal end of a catheter for denervation according to another embodiment of the present disclosure, and Fig. 23 is a cross-sectional view showing the catheter of Fig. 22 along the longitudinal direction. However, features to which the description in relation to the embodiment of Figs. 13 to 21 can be applied will not be described in detail, but different features will be described in detail.

Referring to Figs. 22 and 23, the movable member 2200 may be provided in the

3100 through the inner space of the catheter body 3100 and be drawn out of the catheter body 3100.

Meanwhile, even though various embodiments illustrate that the movable member 3200 is provided out of the catheter body 3100, the present disclosure is not limited thereto.

Fig. 38 is a cross-sectional view schematically showing a distal end of a catheter for denervation according to another embodiment of the present disclosure, and Fig. 39 is a cross-sectional view showing the catheter of Fig. 38 along the longitudinal direction. However, features to which the description in relation to the embodiment of Figs. 27 to 37 can be applied will not be described in detail, but different features will be described in detail.

Referring to Figs. 38 and 39, the movable member 3200 may be provided in the inner space of the catheter body 3100. In addition, the movable member 3200 may move in the lateral direction in the inner space of the catheter body 3100. Here, different from the embodiments of Figs. 27 to 37, the proximal end of the support member 3400 may be connected and fixed to the movable member 3200, and the distal end thereof may be fixed to the terminal 3110 of the catheter body.

In addition, in this embodiment, a configuration for making a difference in distances between the connection points of the support members 3400, for example a step or an inclination, may be formed at the outer surface (the right surface in Fig. 39) of the movable member 3200 and/or the inner surface (the left surface in Fig. 39) of the terminal 3110 of the catheter body.

Since the movable member 3200 is located closer to the proximal end of the catheter in comparison to the catheter body 3100, if an operator pushes the operating

Also preferably, the catheter for denervation according to the present disclosure may further include a temperature measuring member (not shown).

In particular, the temperature measuring member may be provided around the electrode 4600 to measure a temperature of the electrode 4600 or around the electrode 4600. In addition, the temperature measured by the temperature measuring member as described above may be used for controlling the temperature of the electrode 4600. Here, the temperature measuring member may be connected to the lead wire 4700 through a separate wire, and the separate wire may extend to the proximal end of the catheter body 4100 through the inner space of the catheter body 4100 and be drawn out of the catheter body 4100.

Meanwhile, even though various embodiments illustrate that the movable member 4200 is provided out of the catheter body 4100, the present disclosure is not limited thereto.

Fig. 55 is a cross-sectional view schematically showing a distal end of a catheter for denervation according to another embodiment of the present disclosure, and Fig. 56 is a cross-sectional view showing the catheter of Fig. 55 along the longitudinal direction. However, features to which the description in relation to the embodiment of Figs. 43 to 54 can be applied will not be described in detail, but different features will be described in detail.

Referring to Figs. 55 and 56, the movable member 4200 and the intermediate member 4400 may be provided in the inner space of the catheter body 4100. In addition, the movable member 4200 and intermediate member 4400 may move in the lateral direction in the inner space of the catheter body 4100.

In addition, the movable member 4200 may be located close to the proximal end

WHAT IS CLAIMED IS:

1. A catheter for denervation, comprising:

a catheter body extending in one direction to have a proximal end and a distal end and having an inner space formed along the longitudinal direction thereof;

a movable member configured to be movable in the inner space of the catheter body along the longitudinal direction of the catheter body;

an operating member having a distal end connected to the movable member to move the movable member;

a plurality of support members having one end connected to the movable member and configured so that the other end thereof moves close to or farther from catheter body according to the movement of the movable member;

a plurality of electrodes respectively provided at the other end of the plurality of support members to generate heat; and

a lead wire respectively electrically connected to the plurality of electrodes to give a power supply path for the plurality of electrodes, the lead wire having a variable region whose length is changeable so that a proximal end of the variable region is fixed to one side of the catheter body and a distal end of the variable region is fixed to the movable member.

2. The catheter for denervation according to claim 1,

wherein the catheter body has a plurality of side holes formed in a side surface of the distal end thereof, and

wherein the plurality of support members moves through the side holes into or out of the catheter body.

3. The catheter for denervation according to claim 2,

wherein the plurality of side holes is located close to the distal end of the catheter body in comparison to the movable member,

wherein the movable member is connected to a proximal end of the plurality of support members and the electrode is provided at a distal end of the plurality of support members, respectively, and

wherein when the movable member moves in a direction from the proximal end of the catheter body toward the distal end of the catheter body, the electrode moves farther from the catheter body.

4. The catheter for denervation according to claim 2,

wherein the plurality of side holes is located close to the proximal end of the catheter body in comparison to the movable member,

wherein the movable member is connected to a distal end of the plurality of support members and the electrode is provided at a proximal end of the plurality of support members, respectively, and

wherein when the movable member moves in a direction from the distal end of the catheter body toward the proximal end of the catheter body, the electrode moves farther from the catheter body.

5. The catheter for denervation according to claim 2,

wherein the catheter body has a side insert groove formed in a region where the side hole is formed, the side insert groove being concave toward the inside of the catheter body so that the electrode is inserted therein.

6. The catheter for denervation according to claim 5,

wherein the electrode is inserted into the side insert groove not to protrude over a side surface of the catheter body.

7. The catheter for denervation according to claim 5,

wherein when the electrode is inserted into the side insert groove, the side hole is closed.

8. The catheter for denervation according to claim 1,

wherein the catheter body has a plurality of front holes formed in a front surface of the distal end thereof, and

wherein the plurality of support members moves through the front holes into or out of the catheter body.

9. The catheter for denervation according to claim 8,

wherein the movable member is connected to a proximal end of the plurality of support members and the electrode is provided at a distal end of the plurality of support members, respectively, and

wherein when the movable member moves in a direction from the proximal end of the catheter body toward the distal end of the catheter body, the electrode is drawn out of the catheter body.

10. The catheter for denervation according to claim 8,

wherein the catheter body has a front insert groove formed in a region where the front hole is formed, the front insert groove being concave toward the inside of the catheter body so that the electrode is inserted therein.

11. The catheter for denervation according to claim 10,

wherein when the electrode is inserted into the front insert groove, the front hole is closed.

12. The catheter for denervation according to claim 1,

wherein the catheter body has an opening formed in a front surface of the distal end thereof, and

wherein the plurality of support members and the plurality of electrodes move through the opening to be received in the inner space of the catheter body or to be drawn out of the catheter body.

13. The catheter for denervation according to claim 12,

wherein the movable member is connected to a proximal end of the plurality of support members and the electrode is provided at a distal end of the plurality of support

members, respectively, and

wherein when the movable member moves in a direction from the proximal end of the catheter body toward the distal end of the catheter body, the electrode is drawn out of the catheter body.

14. The catheter for denervation according to claim 1,

wherein in a state in which the other end of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined distance in the longitudinal direction of the catheter body.

15. The catheter for denervation according to claim 14,

wherein in a state in which the other end of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by 0.3 cm to 0.8 cm in the longitudinal direction of the catheter body.

16. The catheter for denervation according to claim 14,

wherein distances between both ends of the plurality of support members are different from each other.

17. The catheter for denervation according to claim 14,

wherein the movable member has a step formed in a surface thereof connected to the plurality of support members.

18. The catheter for denervation according to claim 1,

wherein in a state in which the other end of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined angle based on a central axis of the catheter body in the longitudinal direction.

19. The catheter for denervation according to claim 1,

wherein the plurality of electrodes generates heat by means of radio frequency.

20. The catheter for denervation according to claim 1,

wherein the support member is pre-shaped so that the other end thereof moves away from the catheter body according to the movement of the movable member.

21. The catheter for denervation according to claim 1,

wherein the catheter body includes at least one stopper provided in the inner space to limit a moving distance of the movable member.

22. The catheter for denervation according to claim 21,

wherein the stopper includes a first stopper for limiting a movement of the movable member toward the proximal end and a second stopper for moving a movement of the movable member toward the distal end.

23. The catheter for denervation according to claim 1,

wherein the catheter body has a guide hole formed in the distal end so that a guide wire moves therethrough.

24. The catheter for denervation according to claim 1, further comprising an elastic member connected between the catheter body and the movable member.

25. The catheter for denervation according to claim 1, further comprising an end tip made of a composition containing polyether block amide and located at a front surface of the distal end of the catheter body.

26. A catheter for denervation, comprising:

a catheter body extending in one direction to have a proximal end and a distal end and having an inner space formed along the longitudinal direction thereof;

a movable member provided at the distal end of the catheter body to be movable along the longitudinal direction of the catheter body;

an operating member having a distal end connected to the movable member to move the movable member;

a plurality of support members having one end connected to a terminal of the catheter body and the other end connected to the movable member, wherein when the movable member moves to decrease a distance between the terminal of the catheter body and the movable member, at least a partial portion of the plurality of support members is bent so that the bending portion moves away from the catheter body;

a plurality of electrodes respectively provided at the bending portion of the

plurality of support members to generate heat; and

a lead wire respectively electrically connected to the plurality of electrodes to give a power supply path for the plurality of electrodes.

27. The catheter for denervation according to claim 26,

wherein the movable member is provided out of the catheter body.

28. The catheter for denervation according to claim 27, further comprising a reinforcing member extending in the longitudinal direction of the catheter body and provided between the catheter body and the movable member,

wherein a distal end of the reinforcing member is fixed to the movable member and a proximal end of the reinforcing member is inserted into a through hole of the catheter body, so that the proximal end of the reinforcing member moves through the through hole of the catheter body according to the movement of the movable member.

29. The catheter for denervation according to claim 26,

wherein the movable member is provided in the inner space of the catheter body, and

wherein the catheter body has an opening through which the bending portion of the support member is drawn out of the catheter body when the support member is bent.

30. The catheter for denervation according to claim 26,

wherein in a state in which the bending portion of the support member moves

away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined distance in the longitudinal direction of the catheter body.

31. The catheter for denervation according to claim 30,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by 0.3 cm to 0.8 cm in the longitudinal direction of the catheter body.

32. The catheter for denervation according to claim 30,

wherein at least one of the plurality of support members has a curved portion to define the bending portion according to the movement of the movable member.

33. The catheter for denervation according to claim 30,

wherein at least one of the plurality of support members is pre-shaped to define the bending portion according to the movement of the movable member.

34. The catheter for denervation according to claim 26,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined angle based on a central axis of the catheter body in the longitudinal direction.

35. The catheter for denervation according to claim 26,

wherein the surfaces of the catheter body and the movable member connected to the support member are perpendicular to the longitudinal direction of the catheter body.

36. The catheter for denervation according to claim 26,

wherein the plurality of electrodes generates heat by means of radio frequency.

37. The catheter for denervation according to claim 26,

wherein the catheter body has a guide hole formed in the distal end so that a guide wire moves therethrough.

38. The catheter for denervation according to claim 26, further comprising at least one stopper for limiting a moving distance of the movable member.

39. The catheter for denervation according to claim 38,

wherein at least one stopper is fixed to the operating member.

40. The catheter for denervation according to claim 38,

wherein at least one stopper is fixed to the catheter body.

41. The catheter for denervation according to claim 26, further comprising an elastic member connected to the movable member to give a restoring force with respect to the movement of the movable member.

42. The catheter for denervation according to claim 26, further comprising an end tip made of a composition containing polyether block amide and located at a front surface of the distal end of the catheter body and the movable member.

43. A catheter for denervation, comprising:

a catheter body extending in one direction to have a proximal end and a distal end and having an inner space formed along the longitudinal direction thereof;

a movable member provided at the distal end of the catheter body to be movable along the longitudinal direction of the catheter body;

an operating member having a distal end connected to the movable member to move the movable member;

a plurality of support members having one end connected to a terminal of the catheter body and the other end connected to the movable member, wherein when the movable member moves to decrease a distance between the terminal of the catheter body and the movable member, at least a partial portion of the plurality of support members is bent so that the bending portion moves away from the catheter body;

a plurality of electrodes respectively provided at the bending portion of the plurality of support members to generate heat; and

a lead wire respectively electrically connected to the plurality of electrodes to give a power supply path for the plurality of electrodes,

wherein at least one of the catheter body and the movable member is connected to at least two support members at points which are spaced apart from each other by a predetermined distance in the longitudinal direction of the catheter body.

44. The catheter for denervation according to claim 43,

wherein at least one of the catheter body and the movable member has a step formed at a surface thereof which is connected to the support member.

45. The catheter for denervation according to claim 43,

wherein at least one of the catheter body and the movable member is inclined at a surface thereof which is connected to the support member.

46. The catheter for denervation according to claim 43,

wherein the movable member is provided out of the catheter body.

47. The catheter for denervation according to claim 46, further comprising a reinforcing member extending in the longitudinal direction of the catheter body and provided between the catheter body and the movable member,

wherein a distal end of the reinforcing member is fixed to the movable member and a proximal end of the reinforcing member is inserted into a through hole of the catheter body, so that the proximal end of the reinforcing member moves through the through hole of the catheter body according to the movement of the movable member.

48. The catheter for denervation according to claim 43,

wherein the movable member is provided in the inner space of the catheter body, and

wherein the catheter body has an opening through which the bending portion of the support member is drawn out of the catheter body when the support member is bent.

49. The catheter for denervation according to claim 43,

wherein the surface of the catheter body and the surface of the movable member, which are connected to the support member, are matched with each other.

50. The catheter for denervation according to claim 43,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by 0.3 cm to 0.8 cm in the longitudinal direction of the catheter body.

51. The catheter for denervation according to claim 43,

wherein a section of the support member in the width direction has an outer surface length longer than an inner surface length thereof.

52. The catheter for denervation according to claim 43,

wherein the support member has a curved portion formed so that the bending portion has a bending direction to move away from the catheter body.

53. The catheter for denervation according to claim 43,

wherein the support member is pre-shaped so that the bending portion has a bending direction to move away from the catheter body.

54. The catheter for denervation according to claim 43,

wherein in a state in which the bending portion of the support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined angle based on a central axis of the catheter body in the longitudinal direction.

55. The catheter for denervation according to claim 43,

wherein the plurality of electrodes generates heat by means of radio frequency.

56. The catheter for denervation according to claim 43,

wherein the catheter body has a guide hole formed in the distal end so that a guide wire moves therethrough.

57. The catheter for denervation according to claim 43, further comprising at least one stopper for limiting a moving distance of the movable member.

58. The catheter for denervation according to claim 43, comprising an elastic member connected to the movable member to give a restoring force with respect to the movement of the movable member.

59. The catheter for denervation according to claim 43, further comprising an end tip made of a composition containing polyether block amide and located at a front

surface of the distal end of the catheter body and the movable member.

60. A catheter for denervation, comprising:

a catheter body extending in one direction to have a proximal end and a distal end and having an inner space formed along the longitudinal direction thereof;

a movable member provided at the distal end of the catheter body to be movable along the longitudinal direction of the catheter body;

an operating member having a distal end connected to the movable member to move the movable member;

an intermediate member provided between a terminal of the catheter body and the movable member to be movable along the longitudinal direction of the catheter body;

a first stopper for allowing the intermediate member to move by the operating member when a distance between the movable member and the intermediate member decreases to a predetermined level;

a first support member having one end connected to the intermediate member and the other end connected to the movable member, wherein when the movable member moves to decrease the distance between the intermediate member and the movable member, at least a partial portion of the first support member is bent so that the bending portion moves away from the catheter body;

a second support member having one end connected to the terminal of the catheter body and the other end connected to the intermediate member, wherein when the intermediate member moves to decrease the distance between the intermediate member and the terminal of the catheter body, at least a partial portion of the second support

member is bent so that the bending portion moves away from the catheter body;

a plurality of electrodes respectively provided at the bending portions of the first support member and the second support member to generate heat; and

a lead wire respectively electrically connected to the plurality of electrodes to give a power supply path for the plurality of electrodes.

61. The catheter for denervation according to claim 60,

wherein the movable member and the intermediate member are provided out of the catheter body, and

wherein the intermediate member has an insert hole through which the operating member is inserted.

62. The catheter for denervation according to claim 61, further comprising a reinforcing member extending in the longitudinal direction of the catheter body and provided between the catheter body and the movable member,

wherein a distal end of the reinforcing member is fixed to the movable member and is inserted into and moves through the intermediate member and the catheter body according to the movement of the movable member.

63. The catheter for denervation according to claim 60,

wherein the movable member and the intermediate member are provided in the catheter body, and

wherein the catheter body has an opening through which the bending portions of

the first support member and the second support member are drawn out of the catheter body when the first support member and the second support member are bent.

64. The catheter for denervation according to claim 60,

wherein in a state in which the bending portions of the first support member and the second support member move away from the catheter body, the electrodes provided at the first support member and the second support member are spaced apart from each other by 0.3 cm to 0.8 cm in the longitudinal direction of the catheter body.

65. The catheter for denervation according to claim 60,

wherein sections of the first support member and the second support member in the width direction have an outer surface length longer than an inner surface length thereof.

66. The catheter for denervation according to claim 60,

wherein the first support member and the second support member have a curved portion formed so that the bending portion has a bending direction to move away from the catheter body.

67. The catheter for denervation according to claim 60,

wherein the first support member and the second support member are pre-shaped so that the bending portion has a bending direction to move away from the catheter body.

68. The catheter for denervation according to claim 60,

wherein in a state in which the bending portions of the first support member and the second support member moves away from the catheter body, the plurality of electrodes is spaced apart from each other by a predetermined angle based on a central axis of the catheter body in the longitudinal direction.

69. The catheter for denervation according to claim 60,

wherein the first support member and the second support member respectively include a plurality of unit support members.

70. The catheter for denervation according to claim 60,

wherein the intermediate member includes a plurality of unit intermediate members,

wherein the catheter further comprises a third support member having both ends connected to the plurality of unit intermediate members,

wherein when a distance between the plurality of unit intermediate members decreases, at least a partial portion of the third support member is bent so that the bending portion moves away from the catheter body, and

wherein an electrode is provided at the bending portion.

71. The catheter for denervation according to claim 60,

wherein the plurality of electrodes generates heat by means of radio frequency.

72. The catheter for denervation according to claim 60,

wherein the catheter body has a guide hole formed in the distal end so that a guide wire moves therethrough.

73. The catheter for denervation according to claim 60,

wherein the first stopper is provided at the operating member between the movable member and the intermediate member to be hooked by an insert hole of the intermediate member through which the operating member is inserted.

74. The catheter for denervation according to claim 60, further comprising a second stopper provide at the operating member between the intermediate member and the terminal of the catheter body to be hooked by an operation hole of the catheter body through which the operating member is inserted.

75. The catheter for denervation according to claim 60, further comprising an elastic member connected to the intermediate member to give a restoring force with respect to the movement of the intermediate member.

76. The catheter for denervation according to claim 60, further comprising an end tip made of a composition containing polyether block amide and located at a front surface of the distal end of the catheter body and the movable member.

77. A denervation apparatus, which includes the catheter for denervation defined in any one of the claims 1, 26, 43 and 60.