Claims

1. An implantation catheter for implanting a vascular implant into a vessel of a human or animal, comprising a catheter shaft (21) having a proximal end and a distal end (23), a vascular implant (35) carried by the catheter shaft (21), and a pressure sensor (29; 30) for sensing a vascular pressure at the distal end (23), wherein the implantation catheter (20) comprises an inflatable balloon (25) arranged circumferentially around an outside of the catheter shaft (21) in a distal end section (24) of the catheter shaft, ~~and the vascular implant (35) is a sensory implant.~~characterized in that a distal end of the balloon (25) flushes with the distal end (23) of the catheter shaft (21).

2. The implantation catheter according to claim 1, wherein the distal end section (24) extends from the distal end (23) towards the proximal end over up to 10% of the total length of the catheter shaft (21).

~~3. The implantation catheter according to claim 1 or 2, wherein a distal end of the balloon (25) flushes with the distal end (23) of the catheter shaft (21).~~

34. The implantation catheter according to any of the preceding claims, wherein the pressure sensor is an electronic pressure sensor (30).

45. The implantation catheter according to claim 34, wherein the implantation catheter comprises a handle, wherein the handle comprises an evaluation electronics for reading the pressure sensor (30) out.

56. The implantation catheter according to claim 34 or 45, wherein the evaluation electronics comprises a wireless communication module for transferring pressure data sensed by the pressure sensor (30) to an external evaluation unit.

67. The implantation catheter according to any of claims 1 or~~to~~ 23, wherein the pressure sensor comprises a measuring lumen (29) having a distal opening at the distal end (23) of the catheter shaft (21), wherein the measuring lumen (29) is designed and arranged

to be filled with a liquid through which a vascular pressure outside the distal opening of the measuring lumen (29) can be transferred to a pressure measuring device connected to a proximal opening of the measuring lumen (29).

7~~8~~. The implantation catheter according to any of the preceding claims, wherein the vascular implant (35) is or comprises at least one of a pressure sensor, a temperature sensor and a flow sensor.

8~~9~~. The implantation catheter according to any of the preceding claims, wherein the vascular implant (35) comprises a data transfer unit for transferring sensed data to an external evaluation unit.

9. The implantation catheter according to any of the preceding claims, wherein the vascular implant (35) is arranged on an outside of the catheter shaft (21).

10. The implantation catheter according to any of ~~the preceding~~ claims 1 to 8, wherein the vascular implant (35) is arranged inside the catheter shaft (21).

11. An implantation catheter arrangement comprising an implantation catheter (20) according to any of the preceding claims and an evaluation unit, wherein the evaluation unit is ~~arranged for~~ operatively coupled~~ing~~ with a data transfer unit of the vascular implant (35) and with the pressure sensor (29; 30) of the implantation catheter (20), wherein the evaluation unit is designed and arranged to receive data from the pressure sensor (29; 30) and from the vascular implant (35), wherein the evaluation unit has a display for displaying the data received from the pressure sensor (29; 30) and from the vascular implant (35) at the same time.

~~12. A method for implanting a vascular implant into a vessel of a human or an animal, particularly into the pulmonary artery, with an implantation catheter (20) according to any of claims 1 to 10, the implantation catheter (20) comprising a catheter shaft (21) having a proximal end and a distal end (23), a vascular implant (35) carried by the catheter shaft (21), a pressure sensor (29; 30) for sensing a vascular pressure at the~~

distal end (23), and an inflatable balloon (25) arranged circumferentially around an outside of the catheter shaft (21) in a distal end section (24) of the catheter shaft (21), the method comprising the following steps:

a) inflating the balloon (25),

b) advancing the catheter (20) to an intended implantation site within the pulmonary artery,

c) keeping the balloon (25) in its inflated stated and measuring the pulmonary wedge pressure to obtain a first value of the pulmonary wedge pressure,
and/or deflating the balloon (25) and measuring the pulmonary arterial pressure to obtain a first value of the pulmonary arterial pressure,

d) releasing the vascular implant (35) from the implantation catheter (20) and implanting the vascular implant (35) at the intended implantation site, and

e) inflating the balloon (25) or keeping the balloon (25) in its inflated stated and measuring the pulmonary wedge pressure to obtain a second value of the pulmonary wedge pressure, and/or
keeping the balloon (25) in its deflated stated or deflating the balloon (25) and measuring the pulmonary arterial pressure to obtain a second value of the pulmonary arterial pressure.

13. The method according to claim 12, wherein the balloon (25) is deflated prior to releasing the vascular implant (35) from the implantation catheter (20).

14. The method according to claim 12 or 13, wherein the method is carried out without using another catheter for measuring the pulmonary wedge pressure or the pulmonary arterial pressure.