

Claims

1. Implant to be used for the occlusion of aneurysms (A) in blood vessels in the region of vascular branches, in particular bifurcation aneurysms (A),
5 with the implant (1) being in an expanded state in which it is implanted in the blood vessel and in a contracted state in which it is movable through the blood vessel, with the implant (1) having a proximal fixing section (3) by means of which the implant (1) can be secured to the wall of a blood vessel, a distal section (5) where
10 the implant (1) in expanded state is radially widened relative to the fixing section (3) and which is intended for placement in or in front of the aneurysm (A), and having a transition section (4) located between the fixing section (3) and the distal section (5), wherein the fixing section (3) being detachably connected to a guide wire (2) via a 1st detachment point (6), wherein the fixing section (3) of the implant (1) is composed of interconnected or intersecting webs or wires,

15 characterized in that in the transition section (4) one or several webs or wires originating from the fixing section (3) or distal section (5) converge centrally, the transition section (4) is provided with a single 2nd detachment point (7) that enables the distal section (5) to be separated, and the detachment mechanisms for the 1st detachment point (6) and the 2nd detachment point (7) differ from one
20 another.

2. Implant according to claim 1, characterized in that the webs or wires in the transition section (4) extend at least to some extent through a sleeve.

3. Implant according to any one of claim 1 or 2, characterized in that the 2nd detachment point (7) is detachable electrolytically.

4. Implant according to claim 3, characterized in that the implant (1) is provided in whole or in part with an electrically insulating coating proximal to the 2nd detachment point (7).

5. Implant according to any one of claims 1 to 4, characterized in that the distal section (5) comprises a plurality of struts, loops or arches that in expanded state at least partially are facing radially outward.

6. Implant according to claim 5, characterized in that the struts, loops or arches in expanded state form an angle ranging between -45° and $+175^{\circ}$, preferably between $+45^{\circ}$ and $+90^{\circ}$ in relation to the longitudinal axis of the implant (1), wherein a positive angle stands for struts, loops or arches pointing radially outwards and a negative angle for struts, loops or arches pointing radially inwards.

7. Implant according to claim 5 or 6, characterized in that the loops or arches are provided inside with a membrane (8) or that a membrane (8) is spanned between the struts.

8. Implant according to any one of claims 1 to 4, characterized in that the distal section (5) is radially widened in expanded state so as to form a spherical, mushroom, anchor, or ellipsoidal shape.

9. Implant according to any one of claims 1 to 8, characterized in that one or several separation elements are arranged centrally in the distal section (5), said separation elements at least partially occluding the neck of the aneurysm (A) in the implanted state.

10. Implant according to claim 9, characterized in that the separation elements are formed from fibers, threads, wires or membranes (8).

11. Implant according to claim 10, characterized in that the membrane (8) in expanded state extends in proximal direction and, preferably, has a conical or pyramid form.

12. Implant according to claims 10 or 11, characterized in that the membrane (8) has one or several openings or that in the membrane (8) one or several openings can be produced by a piercing method.