nylon, have been found to be useful for the distal segment. However, in principle, the invention also compasses balloon catheters in which proximal segment and distal segment are manufactured from the same material or in which proximal segment and distal segment ultimately do not differ in terms of structure and, accordingly, no transition between the segments can be discerned.

The invention will also be more particularly elucidated in the attached figures, in which:

Figure 1 shows a catheter according to the invention in lateral view;

Figure 2 shows a catheter according to the invention without tube in cross section;

Figure 3 shows a tube in cross section;

Figure 4 shows a catheter according to the invention with tube in cross section and

Figure 5 shows the guidance of balloon and tube through a nozzle in longitudinal section.

Figure 1 shows various depictions of the distal region of a balloon catheter 1 according to the invention. In its distal end-segment, the balloon catheter 1 has a balloon 2. Furthermore, the balloon catheter 1 has an inner tunnel 3, which also runs through the interior of the balloon 2.

In Figure 1a, it is possible to identify the balloon 2 in the expanded state, after said balloon has been expanded by supply of a fluid under pressure. In this form, the balloon 2 is suitable for eliminating stenoses.

catheter (1) was previously guided together with the tube (5).

7. The method as claimed in any of claims 1 to 6, characterized in that the nozzle (6) is heated during pull-through of the tube (5).

8. The method as claimed in any of claims 1 to 7, characterized in that the tube (5) is manufactured from polytetrafluoroethylene.

9. The method as claimed in any of claims 1 to 8, characterized in that the extendable element (2) is laid in folds before pulling-over the tube.

10. A catheter obtainable by a method as claimed in any of claims 1 to 9, the catheter (1) comprising a proximal segment, a distal segment, and an expandable element (2) arranged in the distal segment, it being possible to bring the expandable element (2) from a contracted state into an expanded state by supply of a fluid and there being arranged around the expandable element (2) in the contracted state a removable protector in the form of a tube (5), the tube (5) being pulled over the expandable element (2) and being stretched longitudinally.

11. The catheter as claimed in claim 10, characterized in that the tube (5) is manufactured from polytetrafluoroethylene.