1

00:00:00,000 --> 00:00:04,040

*What is the surgical treatment for arterial stenosis?*

2

00:00:04,800 --> 00:00:10,680

*Another form of invasive treatment is open surgery.*

3

00:00:11,200 --> 00:00:14,860

*It is used when puncture catheter techniques*

4

00:00:14,960 --> 00:00:19,800

*through the skin cannot be used.*

5

00:00:19,920 --> 00:00:25,800

*These are usually the most invasive measures.*

6

00:00:26,160 --> 00:00:28,860

*A few decades ago, it was the only way*

7

00:00:28,960 --> 00:00:31,660

*to save a limb.*

8

00:00:31,760 --> 00:00:35,660

*It is still commonly used today, especially when the vascular*

9

00:00:35,760 --> 00:00:41,160

*occlusion is very extensive or involves a long segment.*

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00:00:41,600 --> 00:00:47,100

*This is most often used in the case of a blockage or*

11

00:00:47,200 --> 00:00:51,580

*narrowing of the iliac artery, the pelvic artery or the femoral artery*

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00:00:51,680 --> 00:00:56,860

*below the groin. In the case of narrowing*

13

00:00:56,960 --> 00:01:03,020

*or blockage of the arteries below the knee, catheter intervention*

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00:01:03,120 --> 00:01:09,160

*is usually used. Open surgery is less common, but it can be performed*

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00:01:09,600 --> 00:01:13,660

*in this case as well. In this case, the operation is usually performed*

16

00:01:13,760 --> 00:01:17,820

*under general anaesthesia or under so-called spinal anaesthesia,*

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00:01:17,920 --> 00:01:22,620

*in which case the patient is awake but feels no pain.*

18

00:01:22,720 --> 00:01:26,780

*These can be lengthy operations, lasting up to three*

19

00:01:26,880 --> 00:01:31,260

*to four hours, sometimes five. That is because*

20

00:01:31,360 --> 00:01:33,900

*we have to make several*

21

00:01:34,000 --> 00:01:37,900

*incisions, find the diseased artery that is blocked*

22

00:01:38,000 --> 00:01:42,540

*or narrowed, and either clean it out or replace it with another*

23

00:01:42,640 --> 00:01:46,440

*vessel or an artificial graft.*

24

00:01:46,720 --> 00:01:51,500

*I will briefly mention the three main types of treatment.*

25

00:01:51,600 --> 00:01:55,980

*Using vascular cleaning, we identify the closed section of the*

26

00:01:56,080 --> 00:02:02,700

*vessel, which is then dissected out of the surrounding tissue.*

27

00:02:02,800 --> 00:02:06,300

*Special vascular clamps are used to clamp the blood vessel above and*

28

00:02:06,400 --> 00:02:12,300

*below the blockage or narrowing, and then the diseased section is opened.*

29

00:02:12,400 --> 00:02:18,700

*After opening, any blood clots or plaques or calcified*

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00:02:18,800 --> 00:02:23,900

*wall fragments that have formed on the inside of the vessel wall are removed,*

31

00:02:24,000 --> 00:02:31,020

*thus eliminating the blockage. After that,*

32

00:02:31,120 --> 00:02:36,940

*we either close the vessel wall with*

33

00:02:37,040 --> 00:02:40,220

*a suture or to prevent it from*

34

00:02:40,320 --> 00:02:45,500

*narrowing later we sew a patch on it.*

35

00:02:45,600 --> 00:02:51,180

*These patches can be made of different materials. It can be a part taken*

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00:02:51,280 --> 00:02:55,820

*from another blood vessel of the patient, or it can be a piece of*

37

00:02:55,920 --> 00:03:00,860

*an artificial artery, or more recently we often use*

38

00:03:00,960 --> 00:03:05,180

*biological materials, whether it is material removed from another*

39

00:03:05,280 --> 00:03:11,160

*person (a donor), or even from the pericardium of an animal.*

40

00:03:11,440 --> 00:03:15,820

*So this vascular cleansing can also be done with a catheter, so we do*

41

00:03:15,920 --> 00:03:20,220

*not have to cut the skin of the patient above the blood vessel lengthwise*

42

00:03:20,320 --> 00:03:24,060

*if there is a long blockage, but it is enough to open it at one site and from there*

43

00:03:24,160 --> 00:03:28,700

*we can use an inflatable balloon to pull out the clot causing the blockage.*

44

00:03:28,800 --> 00:03:33,260

*A more complicated procedure is when a long section is involved*

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00:03:33,360 --> 00:03:37,320

*and we have to replace it, it is not possible to clear the artery this way.*

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00:03:37,760 --> 00:03:40,460

*The way to do this, as I mentioned before, can be done with different*

47

00:03:40,560 --> 00:03:44,300

*materials, for example, we take the patient’s own vein,*

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00:03:44,400 --> 00:03:48,140

*from the thigh, either from the same leg or from the other side,*

49

00:03:48,240 --> 00:03:54,440

*and we implant it next to the blocked area.*

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00:03:54,640 --> 00:03:57,900

*It is also important that we do not remove the occluded blood*

51

00:03:58,000 --> 00:04:00,620

*vessel from the body, but*

52

00:04:00,720 --> 00:04:07,340

*we apply another vein along it, providing a bypass. This is*

53

00:04:07,440 --> 00:04:11,740

*done by making an arterial suture above*

54

00:04:11,840 --> 00:04:16,140

*and below the blockage. It is still performed today*

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00:04:16,240 --> 00:04:21,160

*as it's been done for seventy years, so it is a hand-stitched vascular*

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00:04:21,600 --> 00:04:26,700

*suture with very fine threads, fine needles, fine instruments,*

57

00:04:26,800 --> 00:04:30,860

*and we do the same thing under the blockage, then we*

58

00:04:30,960 --> 00:04:34,540

*take off the vascular clamps and the blood flows down*

59

00:04:34,640 --> 00:04:38,040

*this new pathway to the leg.*

60

00:04:38,480 --> 00:04:42,140

*These materials, as I said, are mostly the patient’s own*

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00:04:42,240 --> 00:04:47,980

*veins, but very often we use artificial blood vessels.*

62

00:04:48,080 --> 00:04:53,900

*These are tried and tested materials that have been around for*

63

00:04:54,000 --> 00:04:56,940

*decades, usually made of plastic, in different types and sizes.*

64

00:04:57,040 --> 00:05:01,260

*These can be ordered as a made-to-measure size,*

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00:05:01,360 --> 00:05:05,250

*so do not require very specific sizes in general.*

66

00:05:05,350 --> 00:05:07,260

*Unfortunately, this artificial artery*

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00:05:07,360 --> 00:05:13,420

*can become infected or blocked in the long term.*

68

00:05:13,520 --> 00:05:17,660

*In this case, the artificial materials must be removed or cleaned out.*

69

00:05:17,760 --> 00:05:21,900

*Unfortunately, even the most modern materials are not like*

70

00:05:22,000 --> 00:05:24,060

*our own blood vessels,*

71

00:05:24,160 --> 00:05:28,460

*but they are usually severely damaged , indicated surgery.*.

72

00:05:28,560 --> 00:05:33,420

*Open surgery usually requires a few day-stay in the hospital.*

73

00:05:33,520 --> 00:05:37,900

*After the surgery, we gradually mobilise the patient,*

74

00:05:38,000 --> 00:05:41,500

*and if we see that there are no complications,*

75

00:05:41,600 --> 00:05:46,140

*we can usually discharge them after 5-7 days. Long-term surgical results are*

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00:05:46,240 --> 00:05:51,200

*good with this procedure, but medication should always be continued.*