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Long-term Results of a Randomized Trial of Stenting of the Superficial Femoral Artery for Intermittent Claudication.

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3 **Original article**

4 *Long-term Results of a Randomized Trial of Stenting of the Superficial Femoral Artery for*
5 *Intermittent Claudication.*

6

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21 **Word count: Main text: 2984 words, abstract 303 words, what this paper adds 62 words.**

22

23 **Abstract:**

24 Objectives: Primary stenting of the superficial femoral artery (SFA) in intermittent claudication
25 (IC) increased health-related quality of life (HRQoL) after 12 and 24 months in this trial. We
26 now present an extended follow-up of HRQoL 36 and 60 months after randomization.

27 Design: Multicenter randomized controlled trial conducted at seven vascular clinics in Sweden
28 between 2010 and 2020. Registered at clinicaltrials.gov, ID: NCT01230229.

29 Materials: One hundred patients randomized to either primary stenting and best medical
30 treatment (BMT) [n = 48] or BMT alone [n=52] followed for 60 months.

31 Methods: HRQoL assessed by the Short-Form 36 Health Survey (SF-36) and EuroQoL 5
32 dimensions (EQ5D) 36 and 60 months after randomization was the primary outcome. Walking
33 Impairment Questionnaire (WIQ) score, reinterventions, progression to chronic limb threatening
34 ischaemia (CLTI), amputation, and death were secondary outcomes.

35 Results: At 36 months follow-up the stent group (n = 32) had significantly better scores in the
36 SF-36 domain Role Physical (RP, p = .023) and the Physical Component Summary (PCS, p =
37 .032) compared to the control group (n = 30), however, there was no significant difference in
38 EQ5D scores (p = .523). WIQ was significantly better in the stent group compared to the control
39 group (p = .029) at 36 months. At 60 months follow-up no significant difference in HRQoL was
40 seen between stent (n = 31) and control group (n = 32). Crossover from control to stent group
41 was 25% at 60 months. There were no differences in progression to CLTI, amputation (2.1% vs
42 1.9%) or mortality (14.6% vs 15.4%) between groups.

43

44 Conclusions:

45 In patients with IC caused by isolated SFA lesions, primary stenting conferred benefits in
46 HRQoL until 36 months from treatment compared with BMT alone, but these benefits were no
47 longer detectable at 60 months where a high crossover rate affected the power of the final
48 analysis.

49

50 **Keywords:**

51 Intermittent claudication

52 Superficial femoral artery

53 Stent treatment

54 Health-related quality of life

55 Long-term follow-up

56

57 **What this paper adds:**

58 This paper adds information regarding HRQoL 36 and 60 months after stent treatment of
59 superficial femoral artery lesions in intermittent claudication patients. Long-term follow-up
60 studies are rare in this patient group. The paper reports a remaining HRQoL benefit from primary
61 stenting compared to patients receiving best medical treatment alone after 36 months, however
62 there was no difference between groups after 60 months.

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66 Introduction:

67 Intermittent claudication (IC) is a manifestation of peripheral arterial disease (PAD), presenting
68 as muscle pain on mild exertion most commonly in the calf muscle during walking, with a
69 prevalence of 6.5% in women and 7.2% men aged 60-90 years in Sweden(1). One important
70 treatment goal in IC is to improve health-related quality of life (HRQoL), which is significantly
71 lower in IC patients compared to healthy controls(2). Management of IC traditionally consists of
72 risk factor modification and best medical treatment (BMT) with or without supervised exercise
73 training (SET)(3). Invasive treatment is recommended for patients with remaining severe IC
74 after SET(4). Long-term patency of invasive treatment of suprainguinal lesions is excellent(5)
75 and invasive treatment in these patients is commonly used. Invasive treatment of IC caused by
76 infrainguinal lesions is more controversial, due to poor patency compared with invasive
77 treatment of iliac artery disease(6). Several studies have reported improved patency with primary
78 stenting compared to stenting bail-out strategy(6-8) with a primary patency of 90% and 69% at 1
79 and 5 year respectively(9). A Cochrane database meta-analysis(10) reported superior patency
80 after 6 and 12 months for primary stenting compared to balloon angioplasty, however few trials
81 included in the analysis had longer follow-up. Primary stenting is recommended for femoro-
82 popliteal lesions in international guidelines(11). Limited evidence is present regarding long term
83 results of HRQoL in IC patients treated invasively due to femoro-popliteal disease.

84 A randomized study in patients with stable IC due to superficial femoral artery (SFA) disease
85 showed a significant increase in HRQoL measures and walking distance 12 and 24 months after
86 randomization to SFA stenting in addition to BMT compared to BMT alone (12, 13). The aim of
87 the present study was to assess HRQoL in these patients during continued follow-up until 36 and
88 60 months.

89 **Materials and Methods:**

90 The study was a multicenter randomized controlled trial conducted at seven vascular clinics in
91 Sweden (Eskilstuna, Helsingborg, Kalmar, Kristianstad, Örebro University Hospital, Skåne
92 University Hospital Malmö, and Växjö). Between 2010 and 2015, 310 patients were screened at
93 the different clinics, out of which 100 patients were randomized on a 1:1 basis to either primary
94 stenting or BMT alone. Enrolment and flow of patients in the trial are shown in Fig 1.

95 Inclusion criteria

96 Patients aged > 18 years with stable (i.e. > 6 months) IC (Fontaine IIb(14)) with absolute
97 walking distance capacity < 500 meters measured by a standardized constant treadmill test
98 (speed 3km/h, without incline), caused by de novo stenosis or restenosis of the SFA lesion
99 (stenosis or occlusion) were included. The target segment was the full length of the SFA to the
100 proximal limit of the popliteal artery not extending beyond 3 cm above the patella on magnetic
101 resonance angiography (MRA) or computed tomography angiogram (CTA), TASC IIa-c(3). A
102 patent popliteal and at least one patent non stenotic tibial runoff artery on the index side were
103 required for inclusion in the study (12, 13).

104 Exclusion criteria

105 Patients with hemorrhagic stroke within the past 3 months, aneurysm of the SFA or popliteal
106 artery, previously implanted stent(s) at the same site, or poor aorto-iliac or common femoral
107 inflow were excluded. Patients with previous invasive correction of reduced proximal inflow 3
108 months prior to evaluation of eligibility were considered eligible for randomization. Patients with
109 target artery diameter < 4.0 mm measured on MRA or CTA, chronic limb threatening ischemia

110 (CLTI) in the index leg, life expectancy of less than 24 months, or previous enrollment of the
111 index or contralateral leg in this, or any other clinical trial were excluded.

112 Patient screening and randomization

113 Patients were screened and included in 2010-2015, 310 patients were screened out of whom 100
114 were randomized. Enrolment and flow of patients in the trial are shown in Fig 1. Randomization
115 was carried out by Spenshult research and development center with sealed envelopes containing
116 allocations to each study group. Treating physicians called an administrative officer at the
117 research center after inclusion for the given study group allocation on a 1:1 basis. Medical
118 professionals and study participants were not blinded to the group allocation. Stratification was
119 performed with regard to short (≤ 90 mm) or long (> 90 mm) lesions. Inclusion was stopped after
120 100 patients due to long inclusion time and the fact that minimum sample size had been reached.

121

122 Treatment procedures

123 Patients in both groups received instructions about regular exercise, antiplatelet (aspirin 75
124 mg/day or clopidogrel 75 mg/day) and lipid lowering drugs. Hypertensive patients were treated
125 with antihypertensive drugs. Follow-up visits were performed at 1, 6, 12, and 24 months. In the
126 absence of standardized program for SET in Sweden, patients received a pedometer and read-
127 outs were recorded during each follow-up visit. Smokers were actively advised to quit smoking,
128 with help from a smoking cessation unit if needed.

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131 Stent treatment

132 Modern nitinol bare metal stents (BMS) designed for the SFA were selected by the treating
133 physician from those available on the Swedish market. Stent diameter was chosen to be 1 mm
134 larger than the reference vessel diameter. Stent length was chosen for complete coverage of the
135 lesion with one stent if possible. If more than one stent was required, overlap (between 0.5 and 1
136 cm) was considered acceptable. Stents were placed to allow at least 5 mm of lesion free vessel at
137 both ends. Post dilatation was performed with a standard angioplasty balloon shorter than the
138 length and less than the diameter of the stent(s). A calibrated angiogram was made to compare
139 pre- and post-implant minimum lumen diameters. The non-diseased artery diameters were
140 measured, and the residual percent stenosis was calculated. Before crossing the lesion an
141 intravenous heparin bolus of 5000 international units was administered. Stented patients were
142 treated with either dual antiplatelet therapy (aspirin 75 mg and clopidogrel 75 mg daily) or in
143 cases of ongoing anticoagulation treatment aspirin 75 mg was added daily during the first 12
144 weeks following stenting.

145 Follow-up

146 All patients were evaluated by a vascular surgeon, vascular physician, an interventional
147 radiologist, or a research nurse at hospital outpatient visits 1, 6, 12, and 24 months after
148 inclusion. At the visit, study related information and parameters were collected, including duplex
149 assessment, measuring peak systolic velocity and peak velocity ratio (15), of stented lesions in
150 patients randomized to stent treatment. Indications for reintervention were classified as clinical
151 deterioration (IC or CLTI) or duplex finding. Follow-up HRQoL questionnaires were sent
152 directly to patients by regular mail at 1, 6, 12, 24, 36, and 60 months after randomization.

153 Medical records were reviewed after 60 months, and all invasive vascular treatments,
154 amputations, and other complications were recorded. Information regarding time and cause of
155 death were retrieved from the Cause of Death Registry administered by the National Board of
156 Health and Welfare in Sweden (<http://socialstyrelsen.se/en>).

157 Primary outcome measure

158 HRQoL assessment using the Short Form 36 Health Survey (SF-36, rating HRQoL 0-100 from
159 worst to best in eight domains)(16) and EuroQol 5 dimensions (EQ5D, rating HRQoL 0 to 1
160 from worst to best)(17) were the primary outcome measures. SF-36 consists of eight domains
161 (Physical Function [PF], Role Physical [RP], Bodily Pain [BP], General Health [GH], Vitality
162 [VT], Social Function [SF], Role Emotional [RE], and Mental Health [MH]). From these eight
163 domains, two linear combinations were computed: a Physical Component Summary (PCS), and a
164 Mental Component Summary (MCS).

165 Secondary outcome measures

166 The Walking Impairment Questionnaire (WIQ, rating 0-100 from worst to best)(18) was used.
167 Interventions or reinterventions on the included SFA lesion in the study patients were recorded
168 and defined as target vessel (TV) interventions in the control group or either target lesion or TV
169 reintervention in the stent group. Progression to CLTI, amputation, and mortality were also
170 secondary outcomes.

171 Statistical analysis

172 The sample size was determined to study a clinically relevant difference between the two groups
173 regarding the primary outcome variable, HRQoL. With significance level of 5% and with 50

174 patients in each group, a difference of 10 points in SF-36 domains PF and VT could be detected
175 with a power of at least 80%, with a loss to follow-up of 10%, including crossovers, during a 24-
176 month period. Comparison was performed at a 5% significance level based on two-sided test.
177 Results are presented as 95% confidence intervals and p values. Differences in continuous
178 variables between groups were analyzed using the intention to treat (ITT) principle. Intergroup
179 comparisons were made using independent samples t test and paired t test for intragroup
180 comparisons. Differences in binary outcomes were compared using the chi-squared test.
181 Statistical analysis was performed with SPSS 26 software (IBM Corp, Armonk, NY, USA).

182 Ethical issues

183 The study was performed in accordance with the Declaration of Helsinki and the guidelines for
184 conduct of clinical investigation as outlined in ISO 14-155. Written informed consent was
185 obtained from all patients. The study was registered in the Clinical Trials database
186 (NCT01230229) and approved by the Medical Ethics Committee of Lund University (Dnr
187 2009/478, 2013/822 and 2019-02641) and the Swedish Ethical Review Authority (Dnr 2021-
188 01344).

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195 **Results:**

196 Participant flow

197 Forty-eight patients were randomized to the stent group and 52 patients to the control group (Fig
198 1). HRQoL questionnaire answers were received from 63 patients at both 36 and 60 months.
199 Twelve patients died during the study period and 25 did not return the questionnaires (Fig 1). All
200 medical patient files were retrieved and reviewed.

201 Baseline data

202 Background variables such as age, sex, smoking habits, blood pressure, LDL-cholesterol,
203 duration of IC (Table 1)(13), lesion characteristics (except lesion length which was longer in the
204 stent group), and HRQoL at baseline did not differ between groups (Table 2).

205 Primary outcome measure at 36 and 60 months

206 In intergroup comparison at 36 months the stent group had significantly better SF-36 RP score (p
207 = .023) and PCS (p = .032) compared with the control group (table 2). SF-36 scores in remaining
208 domains were numerically higher in the stent group but the difference was not statistically
209 significant. After 60 months, there were no longer any significant differences in SF-36 domain
210 scores between groups. EQ5D scores were 0.63 and 0.58 in the stent and control groups
211 respectively (p = .523) after 36 months, and 0.64 and 0.59 after 60 months (p = .508).

212 In intragroup comparisons, the scores in SF-36 domains PF (p = .012), RP (p = .013), BP (p =
213 .007), and PCS (p = .016) 36 months from randomization, and BP (p = .044) after 60 months
214 were significantly improved in the stent group, whereas no primary outcome measure had

215 improved in the control group after 36 and 60 months (Supplementary table 1). EQ5D scores
216 were unchanged after 36 or 60 months in both groups (Supplementary table 1).

217 Secondary outcomes

218 WIQ was significantly better in the stent group compared to the control group ($p = .029$) after 36
219 months, whereas after 60 months this difference was no longer significant ($p = .40$) (Table 2). In
220 intragroup comparisons, the WIQ scores at both 36 ($p = .007$) and 60 months ($p = .025$) had
221 improved significantly in the stent group. In the control group, WIQ score was unchanged at 36
222 months, but had improved significantly at 60 months ($p = .005$) (Supplementary table 1).

223 Fourteen patients in the control group received stent treatment of the included SFA lesion during
224 the study period due to progress to either disabling IC (10 patients) or CLTI (4 patients) with a
225 median time from randomization to crossover of 19 (IQR 13 - 41) months. Six reinterventions on
226 the included TV were subsequently performed in these 14 patients. Seventeen TV reinterventions
227 were performed in the stent group, of which two were due to progression to CLTI, eight to
228 worsening IC, and seven to significant in-stent restenosis on duplex ultrasound. Two patients
229 underwent amputation, one in each group. Five-year mortality was 14.6% and 15.4% ($p = .991$)
230 in the stent and control groups respectively. The most common cause of death was ischemic
231 heart disease, no deaths were related to TV reinterventions.

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236 **Discussion:**

237 In this randomized controlled study comparing patients with stable IC due to lesions in the SFA
238 treated with either primary stenting in combination with BMT or BMT alone, patients in the stent
239 group reported significant improvement in the primary outcome measure, HRQoL, compared to
240 BMT alone after 12 and 24 months as previously reported (12, 13). This extended follow-up
241 demonstrated improved HRQoL also at 36 months in the physical SF-36 measures RP and PCS,
242 and WIQ. At 60 months no significant differences in HRQoL scores were detectable in
243 intergroup comparison. However, in intragroup comparison among stented patients the SF-36
244 measures PF, RP, BP, and PCS were improved at 36 months after randomization and one SF-36
245 domain (BP) was improved at 60 months, whereas in the control group no primary outcome
246 measure was improved at 36 and 60 months.

247 No difference was seen in terms of progression to CLTI, amputation rate, or mortality between
248 the two treatment groups, whereas the need for reintervention was higher in the stent group. This
249 might partly be due to study design; the stent group underwent duplex surveillance of stents for
250 24 months which might have caused reintervention bias.

251 Follow-up studies beyond 12 or 24 months on patients with IC are rare. Extended 5-year follow-
252 up of the IRONIC trial(19) comparing BMT and revascularization and the ERASE study(20, 21)
253 comparing SET versus SET combined with revascularization reported that the initial benefits of
254 revascularization seen at 12 and 24 months in the IRONIC trial(19) and 12 months in the ERASE
255 study(20-22) were no longer present after 5 years. However, these studies included both
256 aortoiliac and femoropopliteal lesions whereas only patients with SFA lesions were included in
257 our trial. These studies report similar rates of progression to CLTI, around 1 in 20 patients, 2-3

258 fold higher reintervention rates in the revascularized groups, and similar losses to follow-up at 5
259 years(19-22). Although these studies provide valuable information regarding long-term results
260 after revascularization of lesions causing IC, it was unclear at what time the initial positive effect
261 of revascularization disappeared. Our study showed positive effects of stent treatment of SFA
262 lesions on HRQoL at 36 and 60 months, although not to the same extent as at 12 and 24
263 months(12, 13). Our findings in IC due to SFA lesions extend the results from the two previous
264 RCT in IC due to both supra- and infrainguinal lesions (19, 20, 22): HRQoL and walking
265 distance benefits for up to 3 years with no added risk of progression to CLTI, death, or
266 amputation, whereas both the patient and physician need to be prepared for adjuvant
267 interventions. Patients with IC are generally elderly and have a 40% mortality rate during 8 years
268 after intervention(23), such increased HRQoL during three to five years might be valuable for
269 patients even if it is transient and does not persist for the rest of their life(24).

270 The economic burden of IC and invasive procedures is increasing (25). A cost-effectiveness
271 analysis of this RCT after 24 months (26) showed a mean benefit of 0.24-0.26 quality adjusted
272 life years (QALY) in stented patients, at a cost of about € 24,000-34,000 per QALY. The
273 national guidelines of the Swedish National Board of Health and Welfare have suggested a
274 threshold of € 50,000 for medical technologies to be considered acceptable(27), whereas the
275 UK's National Institute for Health and Care Excellence (NICE) advises a lower cost-
276 effectiveness threshold ranging between € 22,000 and € 33,900 (28). In a 5-year cost-
277 effectiveness analysis from the IRONIC trial the treatment was not cost effective irrespective of
278 the applied threshold (19). In our present study, no cost-effectiveness analysis has been
279 performed after 36 or 60 months.

280 This study has some limitations. First, as it was originally designed to detect differences in the
281 primary outcome at 24 months with an expected 10% loss to follow-up, both the prolonged
282 follow-up and additional loss of patients at 36 and 60 months and the 25% crossover from the
283 control group to stent at 60 months negatively affected the power of the analysis. In future trials
284 of invasive treatment of IC, crossover and loss to follow-up need to be taken into account. As the
285 study was analyzed with the intention to treat principle, the high crossover rate at 60 months
286 renders the study unpowered to detect differences between the study groups at this time point,
287 which could potentially explain the lack of difference between the groups. Most physical SF-36
288 domains as well as WIQ had increased numerically in the control group at 60 months compared
289 to baseline, although only the WIQ increase was statistically significant. The lack of difference
290 between groups at 60 months could therefore be due not only to a loss of effect of stent treatment
291 but also to crossovers in the control group. Many other factors than walking capacity affect
292 HRQoL, and other reasons for the increase in HRQoL in the control group at 60 months could be
293 survival or response bias as participants with high morbidity and low HRQoL either passed away
294 or did not answer the questionnaires. Another limitation during extended follow-up of this trial
295 was the lack of objective measures like ABI, absolute walking distance by treadmill test, and
296 duplex at 36 and 60 months. It is also worth acknowledging the large number of comparisons in
297 our trial, which might have increased the risk of rejecting a true null hypothesis. However, we
298 interpret the trial results in favor of stent treatment for at least 36 months for physical HRQoL
299 measures for the intermittent claudication patient. The trial does not give robust evidence for a
300 lasting effect of stenting until 60 months, but a transient period of improved HRQoL might be
301 valuable for an elderly vascular patient. This trial provides information relevant when presenting
302 treatment options for patients as well as for health authorities.

303 Conclusion:

304 In patients with IC caused by isolated SFA lesions, primary stenting conferred benefits in

305 HRQoL until 36 months from treatment compared with BMT alone, but these benefits were no

306 longer detectable at 60 months where a high crossover rate of 25% affected the power of the

307 final analysis.

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321 Conflict of interest:

322 Hans Lindgren has received compensation according to a proctoring and training agreement with
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324 the study. The study was conducted without sponsoring from any medical device company.

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Table 1. Baseline demographic data and lesion characteristics in 100 patients with intermittent claudication randomized to primary stenting or best medical treatment only (control group). Mean (SD) or n (%). Table is adapted from previously published trial results, Lindgren et al (12)

	Stent (n=45)	Control (n=49)	P value
Age (years)	71.3 (5.3)	69.8 (5.8)	.184
Sex			
Male	22	28	.540
Female	23	21	
ABI	0.58 (.12)	0.63 (.17)	.129
Walking distance (m)	178 (87.3)	210 (107.4)	.114
Duration of IC (months)	30 (29.3)	41 (48.3)	.179
Smoking			.125
Yes (n)	7	11	
Former (n)	26	32	
Never (n)	12	5	
LDL (mmol/l)	2.75 (1.1)	2.55 (0.9)	.374
B-glucose (mmol/l)	7.0 (2.8)	6.3 (2.1)	.207
Systolic BP (mmHg)	155 (21.7)	150 (20.7)	.282
Diastolic BP (mmHg)	80 (11.)	79 (8.8)	.831
S-creatinine (μ mol/l)	84 (24.5)	82 (21.9)	.653
Lesion length (mm)	145 (91)	103 (97)	.021
Occlusion (n)	31	36	.654
Stenosis (n)	14	13	NS
Degree of stenosis (%)	81.7 (16.3)	91.5 (3.1)	.065
No crural vessels (n)	2.5 (0.6)	2.3 (0.7)	.219

B = blood, P = plasma, S = serum, BP = blood pressure, IC = intermittent claudication, LDL = low-density lipoprotein, ABI = ankle-brachial index.

Table 2. Baseline, 36- and 60-month levels of primary (SF-36 and EQ5D) and secondary (WIQ) outcome variables in 100 patients with intermittent claudication randomized to primary stenting or best medical treatment only. Mean (SD), p-values comparing groups.

	Baseline		p	36 mo		p	60 mo		P
	Stent (n = 45)	Control (n = 49)		Stent (n = 33)	Control (n = 30*)		Stent (n = 31)	Control (n = 32**)	
PF	43 (17)	43 (17)	.972	60 (23)	48 (24)	.065	52 (26)	54 (26)	.730
RP	41 (39)	43 (41)	.731	62 (40)	38 (38)	.023	38 (40)	44 (42)	.570
BP	40 (17)	38 (17)	.734	55 (26)	48 (23)	.258	51 (25)	49 (27)	.702
GH	54 (17)	52 (20)	.867	59 (22)	51 (20)	.166	55 (23)	50 (25)	.411
VT	49 (22)	50 (23)	.686	58 (25)	51 (25)	.253	56 (22)	51 (25)	.432
SF	74 (23)	72 (30)	.648	83 (23)	81 (26)	.859	76 (25)	73 (26)	.723
RE	54 (44)	58 (44)	.801	70 (36)	52 (47)	.096	52 (45)	58 (45)	.574
MH	72 (21)	72 (24)	.861	79 (20)	75 (25)	.503	78 (20)	73 (21)	.421
PCS	31 (8)	31 (7)	.912	38 (11)	33 (8)	.032	34 (11)	32 (11)	.961
MCS	48 (12)	49 (14)	.646	50 (10)	49 (13)	.691	48 (12)	47 (12)	.747
EQ5D	0.56 (0.27)	0.46 (0.31)	.121	0.63 (0.27)	0.58 (0.31)	.523	0.64 (0.23)	0.59 (0.32)	.508
WIQ	40 (18)	35 (18)	.175	62 (27)	46 (27)	.029	56 (27)	50 (24)	.404

Short Form 36 Health Survey (SF-36), rating HRQoL 0-100 from worst to best in eight domains (Physical Function [PF], Role Physical [RP], Bodily Pain [PB], General Health [GH], Vitality [VT], Social Function [SF], Role Emotional [RE], Mental Health [MH]), Physical Component Summary (PCS), Mental Component Summary (MCS), EuroQoL 5-dimensions (EQ5D, rating health-related quality of life states 0-1 from worst to best), and Walking Impairment Questionnaire (WIQ, rating 0-100 from worst to best). * At 36- and 60-month follow-up 6 and 8 patients respectively in the control group had undergone stenting of the included target vessel.

Supplement table.

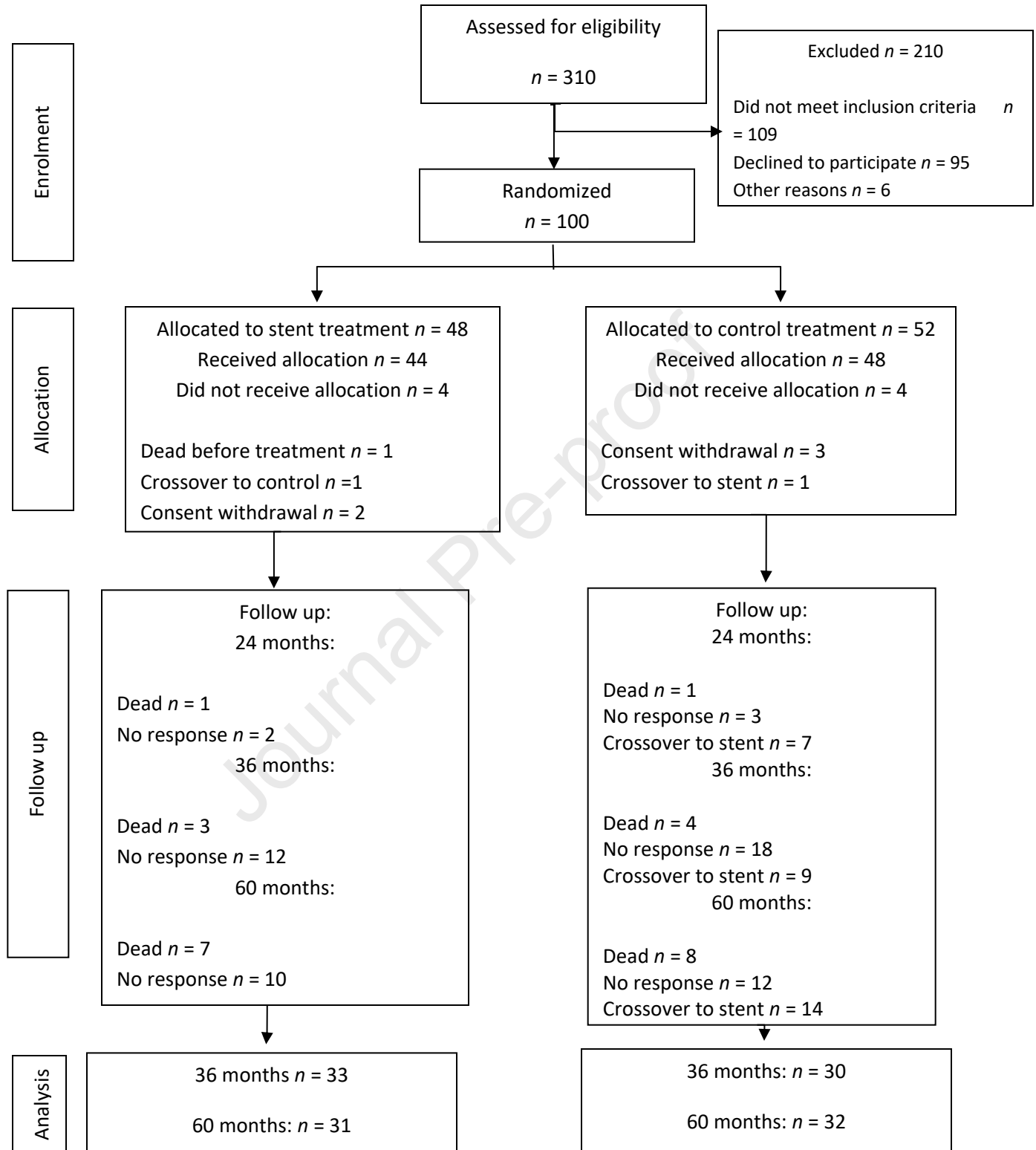
Table S1. Mean change in primary (SF-36 and EQ5D) and secondary (WIQ) outcome variables in 100 patients with intermittent claudication randomized to primary stenting or best medical treatment only after 36- and 60-months. P-values compared to baseline. Intragroup comparisons.

	Stent group 0 vs 36 mo (n = 33)		Control group 0 vs 36 mo (n = 30*)		Stent group 0 vs 60 mo (n = 31)		Control group 0 vs 60 mo (n = 32*)	
	Mean change (95% CI)	P	Mean change (95% CI)	P	Mean change (95% CI)	P	Mean change (95% CI)	P
PF	11.1 (2.7- 19.5)	.012	1.6 (-7.1 - 10.4)	.704	6.9 (-1.7 – 15.4)	.112	7.3 (-1.7 – 16.3)	.110
RP	13.7 (3.2 - 24.3)	.013	-9.5 (-24.8 - 5.8)	.216	-4.6 (-18.6 – 9.3)	.503	1.1 (-12.4 – 14.7)	.868
BP	13.0 (3.7 - 22.3)	.007	6.6 (-2.4 - 15.6)	.145	10.2 (0.3 – 20.0)	.044	8.7 (-0.9 – 18.2)	.074
GH	1.8 (-4.9 - 8.4)	.594	-2.6 (-10.2 - 4.9)	.457	1.0 (-5.5 – 7.4)	.760	-0.2 (-7.2 – 6.7)	.950
VT	2.6 (-4.5 - 9.7)	.460	-0.2 (-7.9 - 7.4)	.951	5.2 (-1.4 – 11.8)	.120	-0.2 (-9.4 – 9.0)	.962
SF	2.7 (-5.0 - 10.5)	.477	5.2 (-4.0 - 14.4)	.260	1.3 (-7.4 – 10.0)	.771	-0.4 (-11.0 – 10.2)	.940
RE	9.7 (-8.0 - 27.3)	.271	-5.9 (-24.6 - 12.7)	.518	-4.8 (-26.0 – 16.6)	.650	0.0 (-15.0 – 15.0)	1.0
MH	2.56 (-4.2 - 9.3)	.444	-0.1 (-5.6 - 5.4)	.959	3.8 (-3.3 – 11.0)	.279	-2.9 (-10.0 – 4.2)	.411
PCS	4.1 (0.8 - 7.4)	.016	-0.7 (-3.7 - 2.3)	.654	1.0 (-3.0 – 5.1)	.609	2.3 (-1.6 – 6.2)	.236
MCS	1.2 (-3.5 - 5.9)	.604	0.36 (-4.2 - 4.9)	.871	0.1 (-5.6 – 5.8)	.977	-1.5 (-6.0 – 3.0)	.505
EQ5D	0.05 (-0.07 - 0.16)	.396	0.10 (-0.03 - 0.23)	.114	0.07 (-0.06 – 0.20)	.265	0.11 (-0.01 – 0.23)	.780
WIQ	15.2 (4.5 - 25.9)	.007	7.9 (-1.5 - 17.4)	.097	13.5 (1.9 – 25.2)	.025	13.3 (4.7 – 22.2)	.005

Short Form 36 Health Survey (SF-36), rating HRQoL 0-100 from worst to best in eight domains (Physical Function [PF], Role Physical [RP], Bodily Pain [PB], General Health [GH], Vitality [VT], Social Function [SF], Role Emotional [RE], Mental Health [MH]), Physical Component Summary (PCS), Mental Component Summary (MCS), EuroQoL 5-dimensions (EQ5D, rating health-related quality of life states 0-1 from worst to best), and Walking Impairment Questionnaire (WIQ, rating 0-100 from worst to best). * At 36- and 60-month follow-up 6 and 8 patients respectively in the control group had undergone stenting of the included target vessel.

Table 4 has been deleted as it is previously published, and we refer to this publication in the manuscript.

Journal Pre-proof



Short title:

Five Year HRQoL After SFA Stenting in Patients with IC

Figure:

Figure 1 is a CONSORT flowchart. Please follow the guidance on page D of the instructions document (similar to the PRISMA layout).

Supplementary material:

Supplementary Table S1

Journal Pre-proof