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Short Duration Hyperbaric Oxygen Therapy to Improve HbA1c, Leukocyte, and Serum Creatinine in Patient with Diabetic Foot Ulcer Wagner 3-4

Author:
dr. Hendry Irawan
Surgery Department, Faculty of Medicine, Udayana University, Sanglah General Hospital, Denpasar, Indonesia.

Co-Author 1:
Dr. dr. I Nyoman Semadi, Sp.B, Sp.BTKV
Thorax and Cardiovascular Surgery Division, Surgery Department, Faculty of Medicine, Udayana University, Sanglah General Hospital, Denpasar, Indonesia.

Co-Author 2:
Prof. Dr. dr. I Gde Raka Widiana, Sp.PD-KGH
Nephrology and Hypertension Division, Internal Medicine Department, Faculty of Medicine, Udayana University, Sanglah General Hospital, Denpasar, Indonesia.

Correspondence:

Name	:	dr. Hendry Irawan
Phone	:	+62 82125097786
Email	:	hendry_irawan@rocketmail.com
Affiliation	:	Surgery Department, Faculty of Medicine, Udayana University, Sanglah General Hospital, Denpasar, Indonesia.
Address	:	Kesehatan Street No. 1, Denpasar, Bali, Indonesia.

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dr. Hendry Irawan

Results

All patients were treated with insulin as antidiabetic and intravenous empiric antibiotics. We used combination short acting and long acting insulin daily. Dose of short acting (NovoRapid®, insulin aspart) 8 units every 8 hours and long acting (Lantus®, insulin glargine) 10 units at night. We grouped into two groups, each group consisted of 15 patients (**Table 1**), with mean age of standard therapy group 56.67 ± 8.30 years old and combination therapy group 50.53 ± 7.52 years old. Patients with the combination therapy group experienced longer DFUs 6.07 ± 4.13 weeks than standard therapy group 3.34 ± 2.09 weeks.

Analysis of HbA1c levels, leukocyte count, and serum creatinine levels were described in **Table 2**, **Table 3**, and **Table 4**. Comparison of baseline HbA1c levels between groups was not different with $p = 0.059$, but after two weeks there was significantly different between groups, $p = 0.001$ (**Table 2**). Evaluation pre and post therapy of HbA1c was significant in both of groups, in standard therapy group (from 10.98 ± 2.37 % to 9.70 ± 2.46 %; $p = 0.006$) and in combination therapy group (from 9.42 ± 1.96 % to 7.07 ± 1.16 %; $p < 0.001$).

Baseline of leukocyte count and the end of therapy between groups (**Table 3**) were not significant ($p = 0.772$ and $p = 0.178$, respectively), although leukocyte count after two weeks in combination therapy group decreased higher than standard therapy group. Leukocyte count in combination therapy group was significantly decreased from 13.97 ± 6.24 x 10^3 cells/µL to 8.84 ± 2.88 x 10^3 cells/µL; $p = 0.009$. In this study, the effect size of HbA1c and leukocyte count was not significant difference. At the end of therapy, leukocyte count between debridement and debridement with amputation was not significant difference. In combination therapy, patients who did debridement had leukocyte count 8.63 ± 3.04 x 10^3 cells/µL compared with debridement with toe amputation 9.17 ± 2.84 x 10^3 cells/µL. Compared with standard therapy, the leukocyte count was higher in debridement and debridement with amputation (11.2 ± 6.30 x 10^3 cells/µL, 10.74 ± 4.62 x 10^3 cells/µL, respectively).

In **Table 4**, the baseline and after two weeks of serum creatinine levels were not comparable because in standard therapy group had good renal function, whereas in combination

therapy group had impaired renal function. In standard therapy group, serum creatinine levels were stable, but serum creatinine levels were little decreased in combination therapy group. The effect size was not significant decrease in serum creatinine level ($p = 0.732$) between groups.

Table 1. Characteristics of Patients

Variables	Standard therapy (n=15)	Standard therapy + HBOT (n=15)
Age (years old)[a]	56.67 ± 8.30	50.53 ± 7.52
Duration of DFU (weeks)[a]	3.34 ± 2.09	6.07 ± 4.13
Duration of DM (years)[b]	4 (1-10)	3 (0.17-25)
Body mass index (kg/m^2)[b]	22.04 (14.33-36.73)	22.04 (17.58-29.40)
Sex (%)		
Male	4 (26.7)	8 (53.3)
Female	11 (73.3)	7 (46.7)
Smoking (%)		
Yes	1 (6.7)	3 (20)
No	14 (93.3)	12 (80)
Hypertension (%)		
Yes	6 (40)	6 (40)
No	9 (60)	9 (60)
Ulcer classification (%)		
Wagner 3	8 (53.3)	6 (40)
Wagner 4	7 (46.7)	9 (60)
Surgery (%)		
Debridement	9 (60)	9 (60)
Debridement with toe amputation	6 (40)	6 (40)
Hemoglobin (g/dL)[a]		
Baseline	10.47 ± 1.72	10.34 ± 1.55
After 2 weeks	9.45 ± 1.46	11.04 ± 1.47
Albumin (g/dL)[a]		
Baseline	3.00 ± 0.56	3.08 ± 0.78
After 2 weeks	3.07 ± 0.53	3.59 ± 0.76

[a]mean ± standard deviation; [b]median (range)

Table 2. HbA1c levels between groups

HbA1c (%)	Standard therapy	95% CI		Combination therapy	95% CI		p
		Lower	Upper		Lower	Upper	
Baseline	10.98 ± 2.37	9.67	12.30	9.42 ± 1.96	8.33	10.50	0.059
After 2 weeks	9.70 ± 2.46	8.34	11.06	7.07 ± 1.16	6.43	7.72	0.001*
Effect size	1.28 ± 1.54	0.43	2.13	2.34 ± 1.57	1.47	3.21	0.072
p	0.006*			< 0.001*			

All values were mean ± standard deviation; *p value < 0.05

Table 3. Leukocyte count between groups

Leukocyte (10^3 cells/µL)	Standard therapy	95% CI		Combination therapy	95% CI		p
		Lower	Upper		Lower	Upper	
Baseline	14.27 ± 6.79	10.51	18.03	13.97 ± 6.24	10.51	17.43	0.772
After 2 weeks	11.01 ± 5.51	7.96	14.07	8.84 ± 2.88	7.26	10.43	0.178
Effect size	3.26 ± 7.76	-1.04	7.56	5.13 ± 6.72	1.40	8.85	0.468
p	0.14			0.009*			

All values were mean ± standard deviation; *p value < 0.05

Table 4. Serum creatinine levels between groups

Serum creatinine (mg/dL)	Standard therapy	95% CI		Combination therapy	95% CI		p
		Lower	Upper		Lower	Upper	
Baseline	0.73 ± 0.27	0.58	0.89	2.10 ± 2.88	0.50	3.69	
After 2 weeks	0.73 ± 0.27	0.58	0.89	2.05 ± 2.77	0.52	3.59	
Effect size	0 ± 0.13	-0.07	0.07	0.05 ± 0.45	-0.21	0.29	0.732
p	0.985			0.551			

All values were mean ± standard deviation

DATA 30 SAMPEL

	No	Name	Age	Sex	HBOT
1	4	MS	57	F	Control
2	5	DMW	67	F	Control
3	23	INS	55	M	Control
4	25	KB	53	M	Control
5	26	IAN	71	F	Control
6	28	IKS	63	F	Control
7	29	LP	51	F	Control
8	30	NKR	48	F	Control
9	33	INS	55	M	Control
10	38	NNS	59	F	Control
11	43	NWM	59	F	Control
12	45	RA	46	F	Control
13	20	NKR	62	F	Control
14	21	NK	40	M	Control
15	22	NKS	64	F	Control
16	1	KSS	49	F	HBOT
17	2	WRA	55	M	HBOT
18	3	MP	42	F	HBOT
19	9	NKK	43	F	HBOT
20	10	KS	50	M	HBOT
21	14	KS	46	F	HBOT
22	15	WS	55	M	HBOT
23	16	IMS	55	M	HBOT
24	17	MS	64	F	HBOT
25	18	MGS	49	M	HBOT
26	24	MW	54	M	HBOT
27	32	INS	55	M	HBOT
28	34	WS	50	F	HBOT
29	36	FF	33	F	HBOT
30	40	IWS	58	M	HBOT

	Smoking	Hypertension	DurDM	DurUlcer	Wagner	Foot
1	No	Yes	6.00	4.00	4	Right
2	No	Yes	10.0	6.00	4	Right
3	No	Yes	7.00	1.00	3	Left
4	Yes	No	3.00	2.00	4	Right
5	No	No	4.00	1.00	4	Right
6	No	No	8.00	6.00	3	Right
7	No	No	1.00	3.00	4	Right
8	No	No	3.00	2.00	3	Left
9	No	Yes	7.00	4.00	3	Right
10	No	Yes	3.00	1.00	3	Right
11	No	No	3.00	4.00	3	Left
12	No	Yes	10.0	2.14	3	Right
13	No	No	2.00	2.00	4	Left
14	No	No	9.00	8.00	3	Right
15	No	No	1.00	4.00	4	Left
16	No	No	3.00	8.00	4	Left
17	Yes	No	10.0	4.00	4	Right
18	No	No	.17	8.00	4	Right
19	No	No	3.00	3.00	3	Right
20	No	No	5.00	8.00	4	Left
21	No	No	1.00	4.00	4	Right
22	No	Yes	25.0	6.00	4	Right
23	No	No	.17	8.00	3	Right
24	No	No	3.00	1.00	3	Left
25	No	Yes	9.00	6.00	3	Right
26	Yes	Yes	14.0	1.00	4	Left
27	No	Yes	.50	2.00	4	Right
28	No	No	5.00	4.00	3	Left
29	No	Yes	5.00	16.0	3	Left
30	Yes	Yes	2.50	12.0	4	Left

	Weight	Height	Surgery	HbA1c_A	Hb_A	Leukocyte_A
1	60	156	Debri+amput	8.83	9.18	19.50
2	60	160	Debri+amput	6.49	10.90	11.00
3	65	167	Debridem	10.50	10.22	32.32
4	60	175	Debridem	11.40	11.05	19.78
5	45	150	Debri+amput	15.40	12.83	14.19
6	60	160	Debridem	9.00	11.24	15.94
7	47	158	Debridem	13.10	9.75	21.31
8	55	157	Debridem	9.60	10.14	13.07
9	60	167	Debri+amput	9.80	9.96	9.37
10	60	165	Debridem	14.10	11.70	13.13
11	51	155	Debridem	10.20	7.22	11.15
12	100	165	Debridem	12.60	14.44	7.67
13	56	154	Debri+amput	9.70	9.48	12.30
14	39	165	Debridem	10.30	8.60	7.13
15	41	147	Debri+amput	13.70	10.33	6.24
16	60	165	Debridem	13.67	10.40	11.91
17	60	168	Debri+amput	10.15	9.00	12.25
18	50	155	Debri+amput	7.99	7.38	7.86
19	70	155	Debridem	11.96	10.80	10.62
20	45	160	Debri+amput	10.45	9.90	7.20
21	48	150	Debridem	10.11	10.69	13.13
22	53	161	Debridem	8.77	11.30	13.90
23	74	165	Debridem	10.70	10.20	11.68
24	70	160	Debridem	9.51	11.30	18.82
25	82	167	Debridem	6.83	8.10	19.30
26	65	175	Debri+amput	8.60	10.44	8.76
27	70	175	Debri+amput	7.30	12.06	31.85
28	70	160	Debridem	9.70	10.37	11.14
29	75	165	Debridem	9.40	13.80	19.19
30	50	160	Debri+amput	6.10	9.43	11.96

	BUN_A	Cr_A	Albumin_A	HbA1c_B	Hb_B	Leukocyte_B
1	10	.68	2.41	5.57	8.52	10.07
2	14	.90	3.20	7.24	8.33	19.96
3	24	1.27	3.23	10.30	6.58	9.88
4	11	.68	2.59	12.00	8.85	27.23
5	16	.33	3.27	13.00	9.32	7.96
6	27	1.00	2.50	7.30	11.45	12.64
7	6	.61	2.57	11.50	8.73	9.90
8	15	.44	3.16	10.10	9.36	10.67
9	16	1.13	3.55	8.70	11.09	9.82
10	23	1.06	2.05	15.00	8.88	6.64
11	16	.66	2.92	8.00	9.27	7.21
12	20	.56	4.17	10.10	12.10	9.23
13	9	.52	2.74	9.00	8.09	7.70
14	13	.63	2.84	7.90	10.53	7.40
15	17	.53	3.77	9.80	10.68	8.91
16	68	2.62	3.02	8.26	11.60	5.62
17	8	.78	3.28	6.63	11.47	13.47
18	8	.41	2.84	5.40	10.50	7.11
19	6	.72	2.89	7.37	10.60	12.44
20	9	.50	5.47	9.46	11.60	6.35
21	5	.43	3.45	8.57	13.70	6.73
22	31	2.48	2.61	6.27	8.30	14.25
23	14	1.10	2.30	7.29	11.10	7.41
24	20	.88	3.18	7.04	12.60	5.78
25	75	5.30	2.30	5.80	9.50	8.28
26	25	2.32	2.95	6.80	10.09	7.48
27	15	1.25	2.54	7.20	12.09	8.83
28	11	.51	2.82	5.90	10.72	6.96
29	21	.76	3.83	8.20	12.76	10.18
30	50	11.3	2.70	5.90	8.96	11.78

	BUN_B	Cr_B	Albumin_B	BMI	decreased_HbA1c
1	12	.90	2.83	24.65	3.26
2	24	.78	2.98	23.44	-.75
3	17	1.17	3.10	23.31	.20
4	5	.54	2.30	19.59	-.60
5	3	.41	2.37	20.00	2.40
6	25	.90	2.60	23.44	1.70
7	2	.46	3.42	18.83	1.60
8	12	.50	2.66	22.31	-.50
9	15	1.21	3.91	21.51	1.10
10	9	1.05	2.92	22.04	-.90
11	10	.65	3.73	21.23	2.20
12	6	.47	3.47	36.73	2.50
13	4	.43	2.76	23.61	.70
14	25	.91	3.02	14.33	2.40
15	18	.63	3.97	18.97	3.90
16	34	2.14	3.75	22.04	5.41
17	14	.70	3.20	21.26	3.52
18	15	.76	3.97	20.81	2.59
19	35	1.74	3.90	29.14	4.59
20	10	.75	3.41	17.58	.99
21	11	.59	4.06	21.33	1.54
22	70	2.30	1.50	20.45	2.50
23	27	1.19	4.19	27.18	3.41
24	9	.75	3.85	27.34	2.47
25	71	4.19	4.61	29.40	1.03
26	23	2.07	3.31	21.22	1.80
27	13	1.08	3.56	22.86	.10
28	13	.44	3.43	27.34	3.80
29	18	.71	4.43	27.55	1.20
30	55	11.4	2.72	19.53	.20

	decreased_leuko	decreased_Cr	increased_Hb
1	9.43	-.22	-.66
2	-8.96	.12	-2.57
3	22.44	.10	-3.64
4	-7.45	.14	-2.20
5	6.23	-.08	-3.51
6	3.30	.10	.21
7	11.41	.15	-1.02
8	2.40	-.06	-.78
9	-.45	-.08	1.13
10	6.49	.01	-2.82
11	3.94	.01	2.05
12	-1.56	.09	-2.34
13	4.60	.09	-1.39
14	-.27	-.28	1.93
15	-2.67	-.10	.35
16	6.29	.48	1.20
17	-1.22	.08	2.47
18	.75	-.35	3.12
19	-1.82	-1.02	-.20
20	.85	-.25	1.70
21	6.40	-.16	3.01
22	-.35	.18	-3.00
23	4.27	-.09	.90
24	13.04	.13	1.30
25	11.02	1.11	1.40
26	1.28	.25	-.35
27	23.02	.17	.03
28	4.18	.07	.35
29	9.01	.05	-1.04
30	.18	-.03	-.47

	increased_Alb
1	.42
2	-.22
3	-.13
4	-.29
5	-.90
6	.10
7	.85
8	-.50
9	.36
10	.87
11	.81
12	-.70
13	.02
14	.18
15	.20
16	.73
17	-.08
18	1.13
19	1.01
20	-2.06
21	.61
22	-1.11
23	1.89
24	.67
25	2.31
26	.36
27	1.02
28	.61
29	.60
30	.02

STATISTIC ANALISIS

Explore
HBOT

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	HBOT	N	Percent	N	Percent	N	Percent
Age	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Duration DM (years)	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Duration DFU (weeks)	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
HbA1c (%) pre	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Hb (g/dL) pre	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Leukocyte (cells/uL) pre	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Creatinine (mg/dL) pre	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Albumin (g/dL) pre	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
HbA1c (%) post	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Hb (g/dL) post	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Leukocyte (cells/uL) post	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Creatinine (mg/dL) post	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
Albumin (g/dL) post	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%
BMI	HBOT	15	100.0%	0	.0%	15	100.0%
	Control	15	100.0%	0	.0%	15	100.0%

Descriptives[a,b,c]

	HBOT			Statistic	Std. Error
Age	HBOT		Mean	50.53	1.942
		95% Confidence Interval for Mean	Lower Bound	46.37	
			Upper Bound	54.70	
			5% Trimmed Mean	50.76	
			Median	50.00	
			Variance	56.552	

			Std. Deviation	7.520	
			Minimum	33	
			Maximum	64	
			Range	31	
			Interquartile Range	9	
			Skewness	-.636	.580
			Kurtosis	1.082	1.121
	Control		Mean	56.67	2.142
		95% Confidence Interval for Mean	Lower Bound	52.07	
			Upper Bound	61.26	
			5% Trimmed Mean	56.80	
			Median	57.00	
			Variance	68.810	
			Std. Deviation	8.295	
			Minimum	40	
			Maximum	71	
			Range	31	
			Interquartile Range	12	
			Skewness	-.269	.580
			Kurtosis	-.150	1.121
Duration DM (years)	HBOT		Mean	5.7560	1.71073
		95% Confidence Interval for Mean	Lower Bound	2.0869	
			Upper Bound	9.4251	
			5% Trimmed Mean	4.9972	
			Median	3.0000	
			Variance	43.899	
			Std. Deviation	6.62563	
			Minimum	.17	
			Maximum	25.00	
			Range	24.83	
			Interquartile Range	8.00	
			Skewness	2.011	.580
			Kurtosis	4.540	1.121
	Control		Mean	5.1333	.82154
		95% Confidence Interval for Mean	Lower Bound	3.3713	
			Upper Bound	6.8954	
			5% Trimmed Mean	5.0926	
			Median	4.0000	
			Variance	10.124	

			Std. Deviation	3.18179	
			Minimum	1.00	
			Maximum	10.00	
			Range	9.00	
			Interquartile Range	5.00	
			Skewness	.290	.580
			Kurtosis	-1.408	1.121
Duration DFU (weeks)	HBOT		Mean	6.0667	1.06667
		95% Confidence Interval for Mean	Lower Bound	3.7789	
			Upper Bound	8.3544	
			5% Trimmed Mean	5.7963	
			Median	6.0000	
			Variance	17.067	
			Std. Deviation	4.13118	
			Minimum	1.00	
			Maximum	16.00	
			Range	15.00	
			Interquartile Range	5.00	
			Skewness	.976	.580
			Kurtosis	1.047	1.121
	Control		Mean	3.3427	.53886
		95% Confidence Interval for Mean	Lower Bound	2.1869	
			Upper Bound	4.4984	
			5% Trimmed Mean	3.2141	
			Median	3.0000	
			Variance	4.356	
			Std. Deviation	2.08701	
			Minimum	1.00	
			Maximum	8.00	
			Range	7.00	
			Interquartile Range	2.00	
			Skewness	.835	.580
			Kurtosis	.130	1.121
HbA1c (%) pre	HBOT		Mean	9.4160	.50556
		95% Confidence Interval for Mean	Lower Bound	8.3317	
			Upper Bound	10.5003	
			5% Trimmed Mean	9.3639	
			Median	9.5100	
			Variance	3.834	
			Std. Deviation	1.95802	

			Minimum	6.10	
			Maximum	13.67	
			Range	7.57	
			Interquartile Range	2.46	
			Skewness	.335	.580
			Kurtosis	.449	1.121
	Control		Mean	10.9813	.61297
		95% Confidence Interval for Mean	Lower Bound	9.6666	
			Upper Bound	12.2960	
			5% Trimmed Mean	10.9854	
			Median	10.3000	
			Variance	5.636	
			Std. Deviation	2.37402	
			Minimum	6.49	
			Maximum	15.40	
			Range	8.91	
			Interquartile Range	3.50	
			Skewness	.215	.580
			Kurtosis	-.275	1.121
Hb (g/dL) pre	HBOT		Mean	10.3447	.40082
		95% Confidence Interval for Mean	Lower Bound	9.4850	
			Upper Bound	11.2043	
			5% Trimmed Mean	10.3174	
			Median	10.4000	
			Variance	2.410	
			Std. Deviation	1.55236	
			Minimum	7.38	
			Maximum	13.80	
			Range	6.42	
			Interquartile Range	1.87	
			Skewness	.166	.580
			Kurtosis	1.143	1.121
	Control		Mean	10.4693	.44524
		95% Confidence Interval for Mean	Lower Bound	9.5144	
			Upper Bound	11.4243	
			5% Trimmed Mean	10.4293	
			Median	10.2200	
			Variance	2.974	
			Std. Deviation	1.72442	
			Minimum	7.22	

			Maximum	14.44	
			Range	7.22	
			Interquartile Range	1.76	
			Skewness	.544	.580
			Kurtosis	1.328	1.121
Leukocyte (cells/uL) pre	HBOT		Mean	13.9713	1.61188
		95% Confidence Interval for Mean	Lower Bound	10.5142	
			Upper Bound	17.4285	
			5% Trimmed Mean	13.3543	
			Median	11.9600	
			Variance	38.972	
			Std. Deviation	6.24278	
			Minimum	7.20	
			Maximum	31.85	
			Range	24.65	
			Interquartile Range	8.20	
			Skewness	1.811	.580
			Kurtosis	4.101	1.121
	Control		Mean	14.2733	1.75384
		95% Confidence Interval for Mean	Lower Bound	10.5117	
			Upper Bound	18.0349	
			5% Trimmed Mean	13.7170	
			Median	13.0700	
			Variance	46.139	
			Std. Deviation	6.79259	
			Minimum	6.24	
			Maximum	32.32	
			Range	26.08	
			Interquartile Range	10.13	
			Skewness	1.361	.580
			Kurtosis	2.408	1.121
Creatinine (mg/dL) pre	HBOT		Mean	2.0953	.74329
		95% Confidence Interval for Mean	Lower Bound	.5011	
			Upper Bound	3.6895	
			5% Trimmed Mean	1.6737	
			Median	.8800	
			Variance	8.287	
			Std. Deviation	2.87877	
			Minimum	.41	
			Maximum	11.37	

			Range	10.96	
			Interquartile Range	1.97	
			Skewness	2.773	.580
			Kurtosis	8.306	1.121
	Control		Mean	.7333	.07083
		95% Confidence Interval for Mean	Lower Bound	.5814	
			Upper Bound	.8852	
			5% Trimmed Mean	.7259	
			Median	.6600	
			Variance	.075	
			Std. Deviation	.27432	
			Minimum	.33	
			Maximum	1.27	
			Range	.94	
			Interquartile Range	.47	
			Skewness	.629	.580
			Kurtosis	-.589	1.121
Albumin (g/dL) pre	HBOT		Mean	3.0787	.20139
		95% Confidence Interval for Mean	Lower Bound	2.6467	
			Upper Bound	3.5106	
			5% Trimmed Mean	2.9891	
			Median	2.8900	
			Variance	.608	
			Std. Deviation	.77997	
			Minimum	2.30	
			Maximum	5.47	
			Range	3.17	
			Interquartile Range	.67	
			Skewness	2.234	.580
			Kurtosis	6.308	1.121
	Control		Mean	2.9980	.14489
		95% Confidence Interval for Mean	Lower Bound	2.6872	
			Upper Bound	3.3088	
			5% Trimmed Mean	2.9856	
			Median	2.9200	
			Variance	.315	
			Std. Deviation	.56117	
			Minimum	2.05	
			Maximum	4.17	
			Range	2.12	

			Interquartile Range	.70	
			Skewness	.437	.580
			Kurtosis	-.001	1.121
HbA1c (%) post	HBOT		Mean	7.0727	.29966
		95% Confidence Interval for Mean	Lower Bound	6.4300	
			Upper Bound	7.7154	
			5% Trimmed Mean	7.0330	
			Median	7.0400	
			Variance	1.347	
			Std. Deviation	1.16058	
			Minimum	5.40	
			Maximum	9.46	
			Range	4.06	
			Interquartile Range	2.30	
			Skewness	.502	.580
			Kurtosis	-.389	1.121
	Control		Mean	9.7007	.63504
		95% Confidence Interval for Mean	Lower Bound	8.3386	
			Upper Bound	11.0627	
			5% Trimmed Mean	9.6357	
			Median	9.8000	
			Variance	6.049	
			Std. Deviation	2.45951	
			Minimum	5.57	
			Maximum	15.00	
			Range	9.43	
			Interquartile Range	3.60	
			Skewness	.508	.580
			Kurtosis	.216	1.121
Hb (g/dL) post	HBOT		Mean	11.0393	.37848
		95% Confidence Interval for Mean	Lower Bound	10.2276	
			Upper Bound	11.8511	
			5% Trimmed Mean	11.0437	
			Median	11.1000	
			Variance	2.149	
			Std. Deviation	1.46584	
			Minimum	8.30	
			Maximum	13.70	
			Range	5.40	
			Interquartile Range	2.00	

			Skewness	-.131	.580
			Kurtosis	-.251	1.121
	Control		Mean	9.4520	.37707
		95% Confidence Interval for Mean	Lower Bound	8.6433	
			Upper Bound	10.2607	
			5% Trimmed Mean	9.4644	
			Median	9.2700	
			Variance	2.133	
			Std. Deviation	1.46038	
			Minimum	6.58	
			Maximum	12.10	
			Range	5.52	
			Interquartile Range	2.16	
			Skewness	.127	.580
			Kurtosis	-.139	1.121
Leukocyte (cells/uL) post	HBOT		Mean	8.8447	.74073
		95% Confidence Interval for Mean	Lower Bound	7.2560	
			Upper Bound	10.4334	
			5% Trimmed Mean	8.7235	
			Median	7.4800	
			Variance	8.230	
			Std. Deviation	2.86884	
			Minimum	5.62	
			Maximum	14.25	
			Range	8.63	
			Interquartile Range	5.05	
			Skewness	.789	.580
			Kurtosis	-.784	1.121
	Control		Mean	11.0147	1.42290
		95% Confidence Interval for Mean	Lower Bound	7.9628	
			Upper Bound	14.0665	
			5% Trimmed Mean	10.3569	
			Median	9.8200	
			Variance	30.370	
			Std. Deviation	5.51088	
			Minimum	6.64	
			Maximum	27.23	
			Range	20.59	
			Interquartile Range	2.97	
			Skewness	2.321	.580

			Kurtosis	5.350	1.121
Creatinine (mg/dL) post	HBOT		Mean	2.0540	.71459
		95% Confidence Interval for Mean	Lower Bound	.5213	
			Upper Bound	3.5867	
			5% Trimmed Mean	1.6244	
			Median	1.0800	
			Variance	7.660	
			Std. Deviation	2.76761	
			Minimum	.44	
			Maximum	11.40	
			Range	10.96	
			Interquartile Range	1.43	
			Skewness	3.132	.580
			Kurtosis	10.613	1.121
	Control		Mean	.7340	.07095
		95% Confidence Interval for Mean	Lower Bound	.5818	
			Upper Bound	.8862	
			5% Trimmed Mean	.7256	
			Median	.6500	
			Variance	.076	
			Std. Deviation	.27479	
			Minimum	.41	
			Maximum	1.21	
			Range	.80	
			Interquartile Range	.44	
			Skewness	.453	.580
			Kurtosis	-1.176	1.121
Albumin (g/dL) post	HBOT		Mean	3.5927	.19609
		95% Confidence Interval for Mean	Lower Bound	3.1721	
			Upper Bound	4.0132	
			5% Trimmed Mean	3.6524	
			Median	3.7500	
			Variance	.577	
			Std. Deviation	.75946	
			Minimum	1.50	
			Maximum	4.61	
			Range	3.11	
			Interquartile Range	.75	
			Skewness	-1.480	.580
			Kurtosis	3.353	1.121

	Control		Mean	3.0693	.13616
		95% Confidence Interval for Mean	Lower Bound	2.7773	
			Upper Bound	3.3614	
			5% Trimmed Mean	3.0620	
			Median	2.9800	
			Variance	.278	
			Std. Deviation	.52734	
			Minimum	2.30	
			Maximum	3.97	
			Range	1.67	
			Interquartile Range	.81	
			Skewness	.396	.580
			Kurtosis	-.831	1.121
BMI	HBOT		Mean	23.6690	1.00114
		95% Confidence Interval for Mean	Lower Bound	21.5218	
			Upper Bound	25.8162	
			5% Trimmed Mean	23.6889	
			Median	22.0386	
			Variance	15.034	
			Std. Deviation	3.87738	
			Minimum	17.58	
			Maximum	29.40	
			Range	11.82	
			Interquartile Range	6.53	
			Skewness	.216	.580
			Kurtosis	-1.500	1.121
	Control		Mean	22.2661	1.23499
		95% Confidence Interval for Mean	Lower Bound	19.6173	
			Upper Bound	24.9149	
			5% Trimmed Mean	21.9037	
			Median	22.0386	
			Variance	22.878	
			Std. Deviation	4.78308	
			Minimum	14.33	
			Maximum	36.73	
			Range	22.41	
			Interquartile Range	3.85	
			Skewness	1.836	.580
			Kurtosis	6.336	1.121

Tests of Normality[b,c,d]

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	HBOT	Statistic	df	Sig.	Statistic	df	Sig.
Age	HBOT	.153	15	.200*	.952	15	.555
	Control	.087	15	.200*	.991	15	1.000
Duration DM (years)	HBOT	.279	15	.003	.776	15	.002
	Control	.215	15	.059	.904	15	.110
Duration DFU (weeks)	HBOT	.187	15	.169	.914	15	.157
	Control	.184	15	.181	.900	15	.095
HbA1c (%) pre	HBOT	.123	15	.200*	.978	15	.955
	Control	.180	15	.200*	.961	15	.707
Hb (g/dL) pre	HBOT	.136	15	.200*	.966	15	.794
	Control	.132	15	.200*	.966	15	.803
Leukocyte (cells/uL) pre	HBOT	.238	15	.022	.819	15	.006
	Control	.172	15	.200*	.893	15	.074
BUN (mg/dL) pre	HBOT	.227	15	.036	.790	15	.003
	Control	.155	15	.200*	.971	15	.870
Creatinine (mg/dL) pre	HBOT	.294	15	.001	.612	15	.000
	Control	.244	15	.017	.929	15	.268
Albumin (g/dL) pre	HBOT	.198	15	.117	.781	15	.002
	Control	.114	15	.200*	.977	15	.949
HbA1c (%) post	HBOT	.132	15	.200*	.959	15	.668
	Control	.137	15	.200*	.976	15	.935
Hb (g/dL) post	HBOT	.090	15	.200*	.989	15	.999
	Control	.192	15	.143	.961	15	.703
Leukocyte (cells/uL) post	HBOT	.216	15	.058	.882	15	.050
	Control	.325	15	.000	.687	15	.000
Creatinine (mg/dL) post	HBOT	.331	15	.000	.565	15	.000
	Control	.160	15	.200*	.906	15	.119
Albumin (g/dL) post	HBOT	.169	15	.200*	.893	15	.073
	Control	.143	15	.200*	.948	15	.487
BMI	HBOT	.217	15	.055	.889	15	.065
	Control	.256	15	.009	.802	15	.004

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
SEX * HBOT	30	100.0%	0	.0%	30	100.0%
Smoking * HBOT	30	100.0%	0	.0%	30	100.0%
Hypertension * HBOT	30	100.0%	0	.0%	30	100.0%
Wagner * HBOT	30	100.0%	0	.0%	30	100.0%

SEX * HBOT

Crosstab

			HBOT		
			HBOT	Control	Total
SEX	Male	Count	8	4	12
		% within HBOT	53.3%	26.7%	40.0%
	Female	Count	7	11	18
		% within HBOT	46.7%	73.3%	60.0%
	Total	Count	15	15	30
		% within HBOT	100.0%	100.0%	100.0%

Smoking * HBOT

Crosstab

			HBOT		
			HBOT	Control	Total
Smoking	Yes	Count	3	1	4
		% within HBOT	20.0%	6.7%	13.3%
	No	Count	12	14	26
		% within HBOT	80.0%	93.3%	86.7%
	Total	Count	15	15	30
		% within HBOT	100.0%	100.0%	100.0%

Hypertension * HBOT

Crosstab

			HBOT		
			HBOT	Control	Total
Hypertension	Yes	Count	6	6	12
		% within HBOT	40.0%	40.0%	40.0%
	No	Count	9	9	18
		% within HBOT	60.0%	60.0%	60.0%
	Total	Count	15	15	30
		% within HBOT	100.0%	100.0%	100.0%

Wagner * HBOT

Crosstab

			HBOT		
			HBOT	Control	Total
Wagner	3	Count	6	8	14
		% within HBOT	40.0%	53.3%	46.7%
	4	Count	9	7	16
		% within HBOT	60.0%	46.7%	53.3%
	Total	Count	15	15	30
		% within HBOT	100.0%	100.0%	100.0%

GROUP 1 (HBOT)

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	HbA1c (%) pre	9.4160	15	1.95802	.50556
	HbA1c (%) post	7.0727	15	1.16058	.29966

Paired Samples Test

		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
Pair 1	HbA1c (%) pre - HbA1c (%) post	2.34333	1.57272	.40607

Paired Samples Test

		Paired Differences	
		95% Confidence Interval of the Difference	
		Lower	Upper
Pair 1	HbA1c (%) pre - HbA1c (%) post	1.47239	3.21427

Paired Samples Test

		t	df	Sig. (2-tailed)
Pair 1	HbA1c (%) pre - HbA1c (%) post	5.771	14	.000

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Leukocyte (cells/uL) pre	15	13.9713	6.24278	7.20	31.85
Creatinine (mg/dL) pre	15	2.0953	2.87877	.41	11.37
Leukocyte (cells/uL) post	15	8.8447	2.86884	5.62	14.25
Creatinine (mg/dL) post	15	2.0540	2.76761	.44	11.40

Ranks

		N	Mean Rank	Sum of Ranks
Leukocyte (cells/uL) post - Leukocyte (cells/uL) pre	Negative Ranks	12[d]	8.83	106.00
	Positive Ranks	3[e]	4.67	14.00
	Ties	0[f]		
	Total	15		
Creatinine (mg/dL) post - Creatinine (mg/dL) pre	Negative Ranks	9[j]	7.83	70.50
	Positive Ranks	6[k]	8.25	49.50
	Ties	0[l]		
	Total	15		

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Leukocyte (cells/uL) pre	15	13.9713	6.24278	7.20	31.85
Creatinine (mg/dL) pre	15	2.0953	2.87877	.41	11.37
Leukocyte (cells/uL) post	15	8.8447	2.86884	5.62	14.25
Creatinine (mg/dL) post	15	2.0540	2.76761	.44	11.40

Ranks

		N	Mean Rank	Sum of Ranks
Leukocyte (cells/uL) post - Leukocyte (cells/uL) pre	Negative Ranks	12[d]	8.83	106.00
	Positive Ranks	3[e]	4.67	14.00
	Ties	0[f]		
	Total	15		
Creatinine (mg/dL) post - Creatinine (mg/dL) pre	Negative Ranks	9[j]	7.83	70.50
	Positive Ranks	6[k]	8.25	49.50
	Ties	0[l]		
	Total	15		

d. Leukocyte (cells/uL) post < Leukocyte (cells/uL) pre
e. Leukocyte (cells/uL) post > Leukocyte (cells/uL) pre
f. Leukocyte (cells/uL) post = Leukocyte (cells/uL) pre
j. Creatinine (mg/dL) post < Creatinine (mg/dL) pre
k. Creatinine (mg/dL) post > Creatinine (mg/dL) pre
l. Creatinine (mg/dL) post = Creatinine (mg/dL) pre

Test Statistics[c]

	Leukocyte (cells/uL) post - Leukocyte (cells/uL) pre	Creatinine (mg/dL) post - Creatinine (mg/dL) pre
Z	-2.613[a]	-.596[a]
Asymp. Sig. (2-tailed)	.009	.551

a. Based on positive ranks.
b. Based on negative ranks.
c. Wilcoxon Signed Ranks Test

GROUP 2 (Control / Non HBOT)

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	HbA1c (%) pre	10.9813	15	2.37402	.61297
	HbA1c (%) post	9.7007	15	2.45951	.63504
Pair 2	Creatinine (mg/dL) pre	.7333	15	.27432	.07083
	Creatinine (mg/dL) post	.7340	15	.27479	.07095

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	HbA1c (%) pre & HbA1c (%) post	15	.799	.000
Pair 2	Creatinine (mg/dL) pre & Creatinine (mg/dL) post	15	.883	.000

Paired Samples Test

		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
Pair 1	HbA1c (%) pre - HbA1c (%) post	1.28067	1.53573	.39652
Pair 2	Creatinine (mg/dL) pre - Creatinine (mg/dL) post	-.00067	.13258	.03423

Paired Samples Test

		Paired Differences	
		95% Confidence Interval of the Difference	
		Lower	Upper
Pair 1	HbA1c (%) pre - HbA1c (%) post	.43021	2.13113
Pair 2	Creatinine (mg/dL) pre - Creatinine (mg/dL) post	-.07409	.07276

Paired Samples Test

		t	df	Sig. (2-tailed)
Pair 1	HbA1c (%) pre - HbA1c (%) post	3.230	14	.006
Pair 2	Creatinine (mg/dL) pre - Creatinine (mg/dL) post	-.019	14	.985

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Leukocyte (cells/uL) pre	15	14.2733	6.79259	6.24	32.32
Leukocyte (cells/uL) post	15	11.0147	5.51088	6.64	27.23

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Leukocyte (cells/uL) post - Leukocyte (cells/uL) pre	Negative Ranks	9[d]	9.56	86.00
	Positive Ranks	6[e]	5.67	34.00
	Ties	0[f]		
	Total	15		

d. Leukocyte (cells/uL) post < Leukocyte (cells/uL) pre

e. Leukocyte (cells/uL) post > Leukocyte (cells/uL) pre

f. Leukocyte (cells/uL) post = Leukocyte (cells/uL) pre

Test Statistics[b]

	Leukocyte (cells/uL) post - Leukocyte (cells/uL) pre
Z	-1.477[a]
Asymp. Sig. (2-tailed)	.140

a. Based on positive ranks.

Ranks

		N	Mean Rank	Sum of Ranks
Leukocyte (cells/uL) post - Leukocyte (cells/uL) pre	Negative Ranks	9[d]	9.56	86.00
	Positive Ranks	6[e]	5.67	34.00
	Ties	0[f]		
	Total	15		

d. Leukocyte (cells/uL) post < Leukocyte (cells/uL) pre

e. Leukocyte (cells/uL) post > Leukocyte (cells/uL) pre

b. Wilcoxon Signed Ranks Test

PRE POST TEST BETWEEN GROUPS

T-Test

Group Statistics

	HBOT	N	Mean
HbA1c (%) pre	HBOT	15	9.4160
	Control	15	10.9813
HbA1c (%) post	HBOT	15	7.0727
	Control	15	9.7007

Group Statistics

	HBOT	Std. Deviation	Std. Error Mean
HbA1c (%) pre	HBOT	1.95802	.50556
	Control	2.37402	.61297
HbA1c (%) post	HBOT	1.16058	.29966
	Control	2.45951	.63504

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
HbA1c (%) pre	Equal variances assumed	1.002	.325	-1.970
	Equal variances not assumed			-1.970
HbA1c (%) post	Equal variances assumed	5.407	.028	-3.743
	Equal variances not assumed			-3.743

Independent Samples Test

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
HbA1c (%) pre	Equal variances assumed	28	.059	-1.56533
	Equal variances not assumed	27.021	.059	-1.56533
HbA1c (%) post	Equal variances assumed	28	.001	-2.62800
	Equal variances not assumed	19.940	.001	-2.62800

Independent Samples Test

	t-test for Equality of Means

			95% Confidence Interval of the Difference	
		Std. Error Difference	Lower	Upper
HbA1c (%) pre	Equal variances assumed	.79456	-3.19291	.06224
	Equal variances not assumed	.79456	-3.19557	.06490
HbA1c (%) post	Equal variances assumed	.70219	-4.06638	-1.18962
	Equal variances not assumed	.70219	-4.09303	-1.16297

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Leukocyte (cells/uL) pre	30	14.1223	6.41186	6.24	32.32
Creatinine (mg/dL) pre	30	1.4143	2.12529	.33	11.37
Leukocyte (cells/uL) post	30	9.9297	4.45560	5.62	27.23
Creatinine (mg/dL) post	30	1.3940	2.04569	.41	11.40
HBOT	30	1.50	.509	1	2

Mann-Whitney Test

Ranks

	HBOT	N	Mean Rank	Sum of Ranks
Leukocyte (cells/uL) pre	HBOT	15	15.03	225.50
	Control	15	15.97	239.50
	Total	30		
Creatinine (mg/dL) pre	HBOT	15	17.87	268.00
	Control	15	13.13	197.00
	Total	30		
Leukocyte (cells/uL) post	HBOT	15	13.33	200.00
	Control	15	17.67	265.00
	Total	30		
Creatinine (mg/dL) post	HBOT	15	19.00	285.00
	Control	15	12.00	180.00
	Total	30		

Test Statistics[b]

	Leukocyte (cells/uL) pre	Creatinine (mg/dL) pre	Leukocyte (cells/uL) post	Creatinine (mg/dL) post
Mann-Whitney U	105.500	77.000	80.000	60.000
Wilcoxon W	225.500	197.000	200.000	180.000
Z	-.290	-1.473	-1.348	-2.178
Asymp. Sig. (2-tailed)	.772	.141	.178	.029
Exact Sig. [2*(1-tailed Sig.)]	.775[a]	.148[a]	.187[a]	.029[a]

a. Not corrected for ties.

b. Grouping Variable: HBOT

Explore

HBOT

Case Processing Summary

	Cases	
HBOT	Valid	Missing

		N	Percent	N	Percent
decreased_HbA1c	HBOT	15	100.0%	0	.0%
	Control	15	100.0%	0	.0%
decreased_leuko	HBOT	15	100.0%	0	.0%
	Control	15	100.0%	0	.0%
decreased_Cr	HBOT	15	100.0%	0	.0%
	Control	15	100.0%	0	.0%

Case Processing Summary

		Cases	
		Total	
	HBOT	N	Percent
decreased_HbA1c	HBOT	15	100.0%
	Control	15	100.0%
decreased_leuko	HBOT	15	100.0%
	Control	15	100.0%
decreased_Cr	HBOT	15	100.0%
	Control	15	100.0%

Descriptives

	HBOT			Statistic	Std. Error
decreased_HbA1c	HBOT		Mean	2.3433	.40607
		95% Confidence Interval for Mean	Lower Bound	1.4724	
			Upper Bound	3.2143	
			5% Trimmed Mean	2.2976	
			Median	2.4700	
			Variance	2.473	
			Std. Deviation	1.57272	
			Minimum	.10	
			Maximum	5.41	
			Range	5.31	
			Interquartile Range	2.49	
			Skewness	.383	.580
			Kurtosis	-.597	1.121
	Control		Mean	1.2807	.39652
		95% Confidence Interval for Mean	Lower Bound	.4302	
			Upper Bound	2.1311	
			5% Trimmed Mean	1.2563	
			Median	1.6000	
			Variance	2.358	
			Std. Deviation	1.53573	
			Minimum	-.90	

			Maximum	3.90	
			Range	4.80	
			Interquartile Range	2.90	
			Skewness	-.029	.580
			Kurtosis	-1.158	1.121
decreased_leuko	HBOT		Mean	5.1267	1.73542
		95% Confidence Interval for Mean	Lower Bound	1.4046	
			Upper Bound	8.8488	
			5% Trimmed Mean	4.5185	
			Median	4.1800	
			Variance	45.175	
			Std. Deviation	6.72124	
			Minimum	-1.82	
			Maximum	23.02	
			Range	24.84	
			Interquartile Range	8.83	
			Skewness	1.464	.580
			Kurtosis	2.382	1.121
	Control		Mean	3.2587	2.00389
		95% Confidence Interval for Mean	Lower Bound	-1.0393	
			Upper Bound	7.5566	
			5% Trimmed Mean	2.8719	
			Median	3.3000	
			Variance	60.234	
			Std. Deviation	7.76104	
			Minimum	-8.96	
			Maximum	22.44	
			Range	31.40	
			Interquartile Range	8.05	
			Skewness	.781	.580
			Kurtosis	1.652	1.121
decreased_Cr	HBOT		Mean	.0413	.11652
		95% Confidence Interval for Mean	Lower Bound	-.2086	
			Upper Bound	.2913	
			5% Trimmed Mean	.0409	
			Median	.0700	
			Variance	.204	
			Std. Deviation	.45130	
			Minimum	-1.02	

		Maximum	1.11	
		Range	2.13	
		Interquartile Range	.34	
		Skewness	.026	.580
		Kurtosis	3.239	1.121
Control		Mean	-.0007	.03423
	95% Confidence Interval for Mean	Lower Bound	-.0741	
		Upper Bound	.0728	
		5% Trimmed Mean	.0065	
		Median	.0100	
		Variance	.018	
		Std. Deviation	.13258	
		Minimum	-.28	
		Maximum	.15	
		Range	.43	
		Interquartile Range	.18	
		Skewness	-.815	.580
		Kurtosis	-.195	1.121

Tests of Normality

		Kolmogorov-Smirnov[a]		
	HBOT	Statistic	df	Sig.
decreased_HbA1c	HBOT	.104	15	.200*
	Control	.144	15	.200*
decreased_leuko	HBOT	.183	15	.188
	Control	.139	15	.200*
decreased_Cr	HBOT	.189	15	.158
	Control	.220	15	.050

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Tests of Normality

		Shapiro-Wilk		
	HBOT	Statistic	df	Sig.
decreased_HbA1c	HBOT	.964	15	.758
	Control	.940	15	.386
decreased_leuko	HBOT	.864	15	.028
	Control	.952	15	.561
decreased_Cr	HBOT	.910	15	.134
	Control	.899	15	.091

T-Test

Group Statistics

	HBOT	N	Mean
decreased_HbA1c	HBOT	15	2.3433
	Control	15	1.2807
decreased_Cr	HBOT	15	.0413
	Control	15	-.0007

Group Statistics

	HBOT	Std. Deviation	Std. Error Mean
decreased_HbA1c	HBOT	1.57272	.40607
	Control	1.53573	.39652
decreased_Cr	HBOT	.45130	.11652
	Control	.13258	.03423

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	t
decreased_HbA1c	Equal variances assumed	.006	.939	1.872
	Equal variances not assumed			1.872
decreased_Cr	Equal variances assumed	3.920	.058	.346
	Equal variances not assumed			.346

Independent Samples Test

		t-test for Equality of Means		
		df	Sig. (2-tailed)	Mean Difference
decreased_HbA1c	Equal variances assumed	28	.072	1.06267
	Equal variances not assumed	27.984	.072	1.06267
decreased_Cr	Equal variances assumed	28	.732	.04200
	Equal variances not assumed	16.399	.734	.04200

Independent Samples Test

		t-test for Equality of Means		
			95% Confidence Interval of the Difference	
		Std. Error Difference	Lower	Upper
decreased_HbA1c	Equal variances assumed	.56756	-.09993	2.22527
	Equal variances not assumed	.56756	-.09996	2.22529
decreased_Cr	Equal variances assumed	.12145	-.20678	.29078
	Equal variances not assumed	.12145	-.21495	.29895

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
decreased_leuko	30	4.1927	7.19649	-8.96	23.02
HBOT	30	1.50	.509	1	2

Mann-Whitney Test

Ranks

	HBOT	N	Mean Rank	Sum of Ranks
decreased_leuko	HBOT	15	16.67	250.00
	Control	15	14.33	215.00
	Total	30		

Test Statistics[b]

	decreased_leuko
Mann-Whitney U	95.000
Wilcoxon W	215.000
Z	-.726
Asymp. Sig. (2-tailed)	.468
Exact Sig. [2*(1-tailed Sig.)]	.486[a]

a. Not corrected for ties.

b. Grouping Variable: HBOT