

The effectiveness of soft laser therapy for tinnitus and sensory hearing loss

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Results

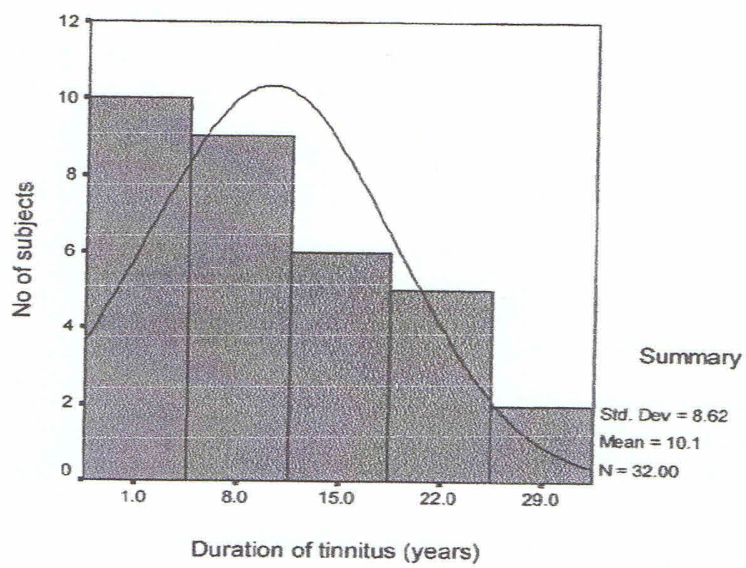
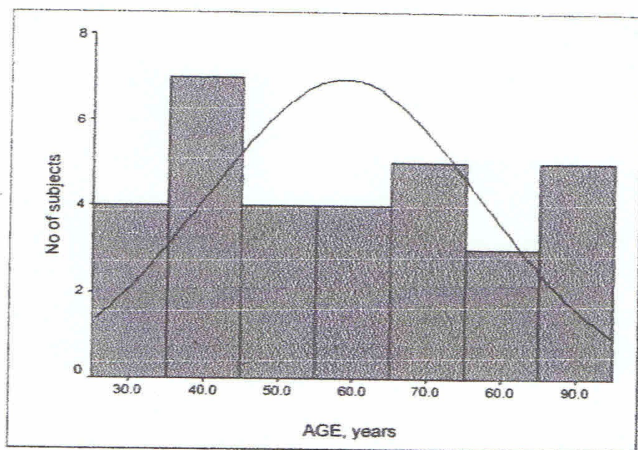
Tinnitus is a frequent and often a very disturbing phantom perception of sound which cannot be attributed to an external source. Recently, low level laser irradiation is becoming alternative therapeutic procedures for treatment cochlear dysfunction such as chronic tinnitus and sensorineural hearing loss. This study was conducted on 32 adults who are suffering from tinnitus using TinniTool EarLaser (DisMark GmbH) device to evaluate the effectiveness of soft laser therapy for treatment tinnitus. The subjects were suffering from continuous tinnitus for more than 3 month and some of them had hypertension, Diabetics Miletus (DM), hearing loss, and chronic heart disease. The subjects had received a laser power of 5mW and the wavelength 650 nm for 20 minutes a day for 10 weeks.

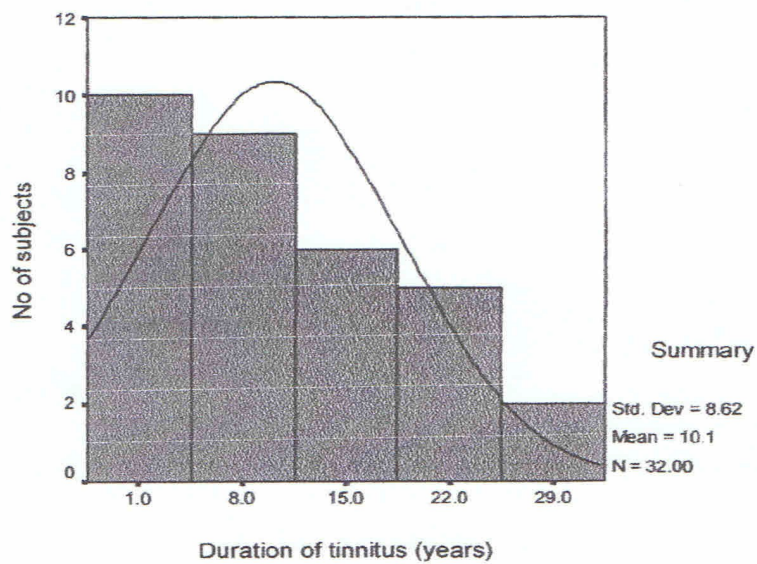
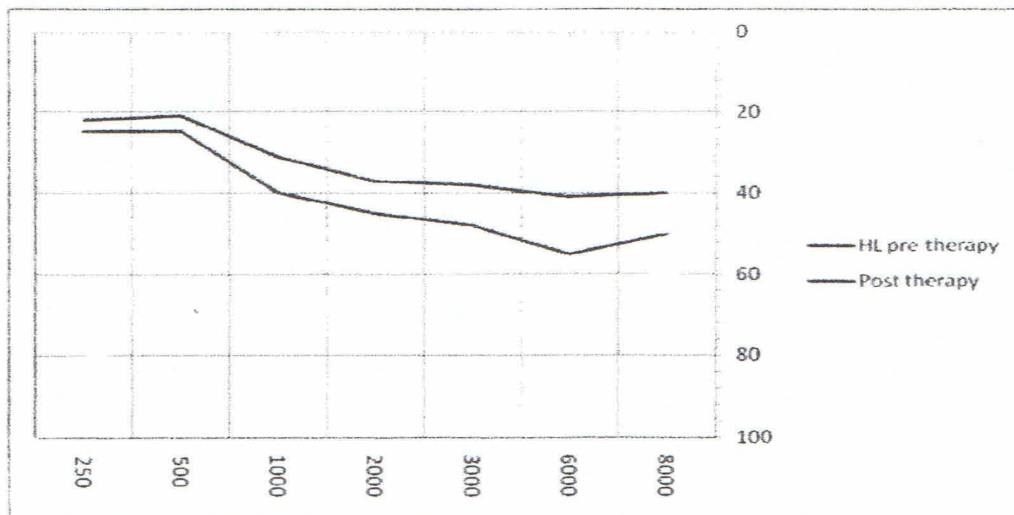
The results show remarkable improvement in both tinnitus intensity and the degree of hearing loss. **88% of the subjects reported the tinnitus intensity reduced more than 25% and 47% of the subject had complete recovery from tinnitus. Additionally, 66% of the subjects had an average improvement in hearing thresholds at 250-8000Hz more than 5 dB and 10% of the subjects the average was more than 20 dB.**

It was concluded from this study that **soft laser therapy is very effective for treatment of tinnitus and sensorineural hearing loss.**

HL_DIFF * scale improvement * DISEASE Crosstabulation

DISEASE			Tinnitus intensity improvement					Total		
			.00	1.00	2.00	3.00	4.00		5.00	
DM	Hearing level improvement in dB	-1.00	Count	0		1			1	2
			Expected Count	.3		.6			1.1	2.0
		1.00	Count	0		1			0	1
			Expected Count	.1		.3			.5	1.0
		5.00	Count	0		0			2	2
			Expected Count	.3		.6			1.1	2.0
	14.00	Count	0		0			1	1	
		Expected Count	.1		.3			.6	1.0	
	15.00	Count	1		0			0	1	
		Expected Count	.1		.3			.6	1.0	
	Total	Count	1		2			4	7	
		Expected Count	1.0		2.0			4.0	7.0	
Hart disease	Hearing level improvement in dB	14.00	Count		1		0		1	
			Expected Count		.5		.5		1.0	
	24.00	Count		0		1		1		
		Expected Count		.5		.5		1.0		
Total	Count		1		1		2			
	Expected Count		1.0		1.0		2.0			
High BP	Hearing level improvement in dB	-2.00	Count	1				0	1	
			Expected Count	.8				.3	1.0	
		8.00	Count	1				0	1	
			Expected Count	.8				.3	1.0	
	9.00	Count	1				0	1		
		Expected Count	.8				.3	1.0		
	13.00	Count	0				1	1		
		Expected Count	.8				.3	1.0		
Total	Count	3				1	4			
	Expected Count	3.0				1.0	4.0			
Neck problem	Hearing level improvement in dB	6.00	Count				0	1	1	
			Expected Count				.5	.5	1.0	
	10.00	Count				1	0	1		
		Expected Count				.5	.5	1.0		
Total	Count				1	1	2			
	Expected Count				1.0	1.0	2.0			
Health no other disease	Hearing level improvement in dB	.00	Count	0	0	0	0	0	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		1.00	Count	0	0	0	1	1	1	2
			Expected Count	.1	.1	.5	.1	1.2	2.0	2.0
		3.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		5.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		6.00	Count	0	0	1	0	0	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		7.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		8.00	Count	0	0	2	0	0	2	2
			Expected Count	.1	.1	.5	.1	1.2	2.0	2.0
		9.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		10.00	Count	0	1	0	0	0	0	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		12.00	Count	0	0	1	0	0	0	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		14.00	Count	1	0	0	0	0	0	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		15.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		16.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
		20.00	Count	0	0	0	0	1	1	1
			Expected Count	.1	.1	.2	.1	.6	1.0	1.0
22.00	Count	0	0	0	0	1	1	1		
	Expected Count	.1	.1	.2	.1	.6	1.0	1.0		
Total	Count	1	1	4	1	10	17			
	Expected Count	1.0	1.0	4.0	1.0	10.0	17.0			





GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid f	17	53.1	53.1	53.1
m	15	46.9	46.9	100.0
Total	32	100.0	100.0	

Statistics

HL_DIFF

N	Valid	32
	Missing	0
Percentiles	10	-.7000
	20	1.0000
	30	5.0000
	40	6.2000
	50	8.0000
	60	9.8000
	70	13.1000
	80	14.4000
	90	18.8000

HL_DIFF

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid -2.00	1	3.1	3.1	3.1
-1.00	2	6.3	6.3	9.4
.00	1	3.1	3.1	12.5
1.00	3	9.4	9.4	21.9
3.00	1	3.1	3.1	25.0
5.00	3	9.4	9.4	34.4
6.00	2	6.3	6.3	40.6
7.00	1	3.1	3.1	43.8
8.00	3	9.4	9.4	53.1
9.00	2	6.3	6.3	59.4
10.00	2	6.3	6.3	65.6
12.00	1	3.1	3.1	68.8
13.00	1	3.1	3.1	71.9
14.00	3	9.4	9.4	81.3
15.00	2	6.3	6.3	87.5
16.00	1	3.1	3.1	90.6
20.00	1	3.1	3.1	93.8
22.00	1	3.1	3.1	96.9
24.00	1	3.1	3.1	100.0
Total	32	100.0	100.0	