

# **Electronic Device against Mite Allergy**

## **Scientific Documentation**

### **EVALUATION OF THE CLINICAL TRIALS Conducted at Merate Hospital**

The obtained results have been first split into the various periods (months) and then considered as a daily basis (data attached).

This approach has permitted a better understanding of the improvement trend for the groups that used the electronic device.

In this way it was also feasible to look at the results from a statistical point of view. The statistical analysis shows that the difference between the group with the electronic device and the control group is statistically significant.

Clinical Study No 1:

## **ULTRASONIC WAVES AS AN ENVIRONMENTAL PROTECTION AGAINST DUST MITES.**

**(European Congress, Bruxelles 1999)**

Source: Brivio Giulio, MD

### **ELECTRONIC DEVICE**

	Days with symptoms (20 patients)	
	1st Month	2nd and 3rd Month
Dyspnoea	21	25
Rhinorrhoea	29	34
Nasl Cong	33	45
<i>Drugs intake</i>	<i>47</i>	<i>61</i>

### **CONTROL**

	Days with symptoms (20 patients)	
	1st Month	2nd and 3rd Month
Dyspnoea	31	48
Rhinorrhoea	35	56
Nasl Cong	39	63
<i>Drugs intake</i>	<i>50</i>	<i>89</i>

**A COMPARISON BETWEEN 2 MEANS OF ENVIRONMENTAL PROTECTION AGAINST MITES:  
MATTRESSES COVER VS. ULTRASONIC WAVES EMITTER.  
(European Congress, Lisbon 2000)**

**ELECTRONIC DEVICE**

Days with symptoms (15 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	72	101	121
Rhinorrhoea	268	289	271
Nasl Cong	376	407	249
<i>Drugs intake</i>	402	496	427

**COVER MATTRESS**

Days with symptoms (15 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	56	98	128
Rhinorrhoea	137	322	393
Nasl Cong	178	382	448
<i>Drugs intake</i>	283	426	596

**CONTROL**

Days with symptoms (15 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	73	120	191
Rhinorrhoea	181	341	534
Nasl Cong	198	368	550
<i>Drugs intake</i>	289	447	734

**A COMPARISON BETWEEN ULTRASONIC WAVES EMITTER  
AND A CHEMICAL ACARICIDE IN IMPLEMENTING  
ENVIRONMENTAL PROTECTION AGAINST MITES  
(European Congress, Berlin 2001)**

**ELECTRONIC DEVICE**

Days with symptoms (16 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	78	116	114
Rhinorrhoea	209	299	317
Nasl Cong	321	351	232
<i>Drugs intake</i>	386	461	454

**ACARICIDE**

Days with symptoms (16 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	56	107	118
Rhinorrhoea	154	301	359
Nasl Cong	160	333	386
<i>Drugs intake</i>	273	497	508

**CONTROL**

Days with symptoms (16 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	76	143	151
Rhinorrhoea	199	408	406
Nasl Cong	203	429	412
<i>Drugs intake</i>	270	591	555

## ANALYSIS OF THE DATA

In order to better understand the trend and the relevance of the results, the various types of symptoms have been considered as a single kind of symptom.

The data concerning the day with symptoms and the drugs intake have been split into different periods (1st month, 2nd- 3rd month, 4th - 6th month).

Finally, the data have been considered on a daily basis. In other words, the following calculation was done:

daily average 1st month = total days with symptoms 1st month / 30 days;

daily average 2nd and 3rd month = total days with symptoms 2nd -3rd month / 60 days;

and so on (and the same for drugs).

### CLINICAL STUDY Nth 1

#### Symptoms

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms, 2nd and 3rd Month	Daily Average 2nd and 3rd Month	Trend
Electronic Device	83	<b>2.7</b>	104	<b>1.7</b>	<b>-37 %</b>
Control	105	<b>3.5</b>	167	<b>2.7</b>	<b>-23 %</b>

#### Drugs

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms, 2nd and 3rd Month	Daily Average 2nd and 3rd Month	Trend
Electronic Device	47	<b>1.5</b>	61	<b>1.0</b>	<b>-34 %</b>
Control	50	<b>1.6</b>	89	<b>1.4</b>	<b>-13 %</b>

### CLINICAL STUDY Nth2

#### Symptoms

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th, 5th, 6th Month	Daily Average 4th, 5th, 6th Month	Trend
Electronic Device	716	<b>23.8</b>	797	<b>13.2</b>	641	<b>7.1</b>	Strong decrease
Cover mattress	371	<b>12.3</b>	802	<b>13.3</b>	969	<b>10.7</b>	Poor decrease
Control	452	<b>15.0</b>	829	<b>13.8</b>	1275	<b>14.1</b>	No change

#### Drugs

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th, 5th, 6th Month	Daily Average 4th, 5th, 6th Month	Trend
Electronic Device	402	<b>13.4</b>	496	<b>8.2</b>	427	<b>4.7</b>	Strong decrease
Cover mattress	283	<b>9.4</b>	426	<b>7.1</b>	596	<b>6.6</b>	Poor decrease
Control	289	<b>9.6</b>	447	<b>7.4</b>	734	<b>8.1</b>	No change

## CLINICAL STUDY Nth3

### Symptoms

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th & 5th Month	Daily Average 4th and 5th Month	Trend
Electronic Device	608	<b>20.8</b>	766	<b>12.7</b>	663	<b>11</b>	<b>Strong decrease</b>
Acaricide	370	<b>12.3</b>	741	<b>12.3</b>	863	<b>14.3</b>	No change
Control	478	<b>15.9</b>	980	<b>16.3</b>	969	<b>16.1</b>	No change

### Drugs

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th & 5th Month	Daily Average 4th & 5th Month	Trend
Electronic Device	386	<b>12.8</b>	461	<b>7.6</b>	454	<b>7.5</b>	<b>Strong decrease</b>
Acaricide	273	<b>9.1</b>	497	<b>8.2</b>	508	<b>8.4</b>	No change
Control	270	<b>9.0</b>	591	<b>9.8</b>	555	<b>9.2</b>	No change

## BRIEF REMARKS

The first study ends at 3rd month.

#### Result:

The improvement of symptoms and the reduction of drugs intake in the group with the electronic device are better than in the control group.

The second study ends at 6<sup>th</sup> month.

A longer time can probably permit more detailed evaluations.

#### Result:

The group with the electronic Device has shown a consistent improvement, both in symptoms and drugs use, up to reach, in the period 4th-6th month, a very high rate.

No changes in the control group, while the improvement in the group with cover mattress seems less than in the group with the electronic device.

**The data has been analysed from a statistical point of view: the improvement in the group with the electronic device is statistically significant.**

The third study ends at 5th month.

#### Result:

Substantial confirmation of the results of second study.

**The data has been analysed from a statistical point of view: The improvement in the group with the electronic device is statistically significant.**