

Study Report #1: Budzynski T, Budzynski H, Maret K, Tang HY. *IMPLICATIONS OF HEART RATE RHYTHM ANALYSIS FOR THE STUDY OF LIFEWAVE PATCHES*. August 2010.

Safety issues:

- No adverse events were reported.

Patch instructions and study procedures:

- In this open-label clinical study, 20 healthy subjects were tested using an electrocardiogram (BioCom Heart Rhythm Scanner -1998-2009 BioCom Technologies to measure the heart rhythm before and after the application of the X-15 *(Aeon) patch.
- The purpose of this study is to test how effectively the analysis of the electrocardiogram can be used to detect immediate changes in the human body when the LifeWave X-15 (Aeon) patch is applied.
- The HRV was measured with a BioCom Heart Rhythm Scanner prior to and 15 minutes after the patches had been applied.
- Acupoints tested:
 - A. Conception Vessel 6 (CV 6)
 - B. Conception Vessel 17 (CV 17)

Efficacy of patches in this study:

- When calculating individual results for the 20 subjects with the application of the X-15 patch: 30% achieved balance (sympathetic score was equal to the parasympathetic); 55% changed toward balance; and 15% changed away from balance. When the two autonomic systems were broken out individually the activity of the SNS showed 20% changed toward balance while 55% changed away from balance and 25% remained the same. The activity of the PNS however, was found to produce a 55% change toward balance with 30% worsening and 15% remaining the same.
- Thus it would appear that most of the change in Autonomic Balance produced by the X-15 (Aeon) patch was due to an increase of parasympathetic activity. This particular patch did not increase heart rate variability as we had thought it might, however, the hypothesis that it would produce a balancing of autonomic innervation to the heart was supported.

Assessment: *This study provides supportive evidence that stimulation of acupuncture points (CV6 and CV17) by Y-Age Aeon patches has a physiological effect on the body of increasing parasympathetic activity of the autonomic nervous system as evidenced by electrocardiogram.*

Study Report #2: Blake-Greenberg S, Nazeran H. X-15* [Y-Age Aeon] Patch Improves Cellular Physiologic Functional Status of Liver, Kidneys, Pancreas, Intestines, Hypothalamus, Adrenal and Thyroid Glands . *Health Integration Therapy*. 2010.

Safety issues:

- No adverse events were reported.

Patch instructions and study procedures:

- Bioelectrical impedance data indicative of cellular physiologic organ function (status), using an Electro Interstitial Scanning (EIS) system, were acquired from two cohort volunteers (A and B) after giving informed consent.
- Subjects were randomly assigned to either Cohort A (comprised of 10 subjects: 3 males and 7 females) or Cohort B was (composed of 10 subjects: 6 males and 4 females).
- Acupoints:
 - A. Cohort A wore the X-15 patch for 3 days (MWF) on acupuncture point CV17.
 - B. Cohort B wore the X-15 patch 5 days per week (M-F) on alternate acupuncture points between CV17 and CV6 for the duration of the study.
- Subjects were instructed to wear the X-15 patch for 12 hours per day and remove at night.
- Acupoints tested:
 - Conception Vessel 6
 - Conception Vessel17
- Cellular physiological function in subjects was evaluated in 10 organs (pancreas, liver, left and right kidneys, intestine, left and right adrenal glands, hypothalamus, pituitary and thyroid glands) while wearing the X-15 (Aeon) patch for a period of 2 weeks. Physiological function testing was repeated each week.
- All subjects served as their own control.

Efficacy of patches in this study:

- The results in Cohort A showed a *highly significant* ($p < 0.001$) improvement in physiologic functional status of *adrenal* glands and *hypothalamus*. No significant improvement in the physiological functional status of other organs was observed in this cohort.
- The overall data in Cohort B in this study demonstrated that X-15 patches worn 12 hours for 5 days a week (M-F) over a period of 2 weeks produced a highly significant improvement in physiologic functional status of liver, adrenals, hypothalamus and thyroid gland with a very significant improvement in intestines and significant improvement in pancreas and kidneys. Stated differently all organs except the pituitary gland achieved significant cellular physiologic functional status improvement compared to baseline with an average statistical power of at least 80%.

Assessment: *This study provides supportive evidence that stimulation of an acupuncture point by Y-Age Aeon patches improves the physiological functional status of 7 organs as measured by an Electro Interstitial Scanning (EIS) system. The improvement in organ function is supportive of an anti-aging claim. This also supports the idea that increasing use of the patches improves the effects on cellular organ function.*

Study Report #3: Clark D. *Pilot Study of the LifeWave X-15* [Y-Age Aeon] Patch.* 2010.

Safety issues:

- Possible detoxification effects were experienced by three subjects:
 - A. one reported fatigue,
 - B. one reported loss of energy
 - C. one reported mental foginess
- Subjects were not removed from study and did not voluntarily withdraw. All effects resolved.

Patch instructions and study procedures:

- The X-15 (LifeWave Y-Age Aeon) patches in this study were applied for a five day period on 24 healthy subjects between the ages of 20 and 77. The random group included 15 females and 9 males.
- Acupoints:
 - A. CV 6
 - B. CV 8
- The Computerized Thermal Imaging Processing Camera “TIP” was used to measure the 8-12 nanometer range of infrared output of the human body. For baseline, subjects were scanned without a patch.
- After baseline scans were captured, a patch was placed on the body and the subject was re-scanned after a 10 minute period.
- Participants were sent home and asked to wear the patch on one of the assigned locations and replace with a new patch every 12 hours.
- Surveys were administered at baseline and after the week of wearing the patch, focused on changes in energy levels and mental focus.
- After five days of wearing the patch, they were re-surveyed by phone interview to determine the changes from day 1 through day 5.

Efficacy of patches in this study:

- The mental focus also improved for the majority of the people who participated.
- There was a decrease in pain levels in 83% of the participants.
- There was an overall energy improvement in 79% of the people who participated.

Assessment:

The results of the medical infrared measurements proved there was a rebalance of the autonomic nervous system due to most of the participants responding with a thermal change either cooling or warming with the influence of the patch. The pain levels also revealed a consistent decrease in pain levels with the application of the patch. Thus the study results confirm the original hypothesis that the X15 (Aeon) patches create a rebalancing of the autonomic nervous system and a reduction in pain levels.

Study Report #4: Prayag R, Bhagyashri N, Gandhi A Ranade A, Dandekar S, Neurgaonkar S, Zutshi A. *Randomly Assigned, Efficacy Study of LifeWave X-15 *(Aeon) Patch on Human Biofield and Interstitial Fluid Ion Concentration.* The Centre for Biofield Sciences, World Peace Centre, Maharashtra Institute of Technology, Pune, India. May 2010.

Safety issues:

- No adverse events were reported

Patch instructions and study procedures:

- Twenty (20) experimental and five (5) control participants between the ages of 18 and 60 were scanned with Polycontrast Interference Photography (PIP), Gas Discharge Visualization (GDV), and the Electro-Interstitial Scan (EIS) before and after using the X-15 (Aeon) patch.
- Subjects also used the Make Yourself Medical Outcome Profile 2 (MYMOP2); patient-generated problem-specific measure that allows the patient to select the most important problems to them that they want to address.

- Acupoint tested:
A. Conception Vessel 17 (CV17)
- Each subject was examined using the PIP, GDV, and EIS prior to applying the X-15 patch to generate baseline readings.
- Participants were instructed to wear the patch for 12 hours.
- The participants were rescanned the next day for final evaluation using the same three screening technologies.

Efficacy of patches in this study:

- The LifeWaveX-15 patch had a dramatic effect on the physical and mental health of the participants who suffered from a range of conditions as compared to control group as seen in the MYMOP2 measurements.
- Significant positive energetic changes were observed in participants in the X-15 experimental group as measured by Polycontrast Interference Photography, Gas Discharge Visualization, and the Electro-Interstitial Scan, but a larger sample is required to achieve statistical significance
- GDV results for the experimental group showed increases in the area and density of biophotonic emissions compared to the control group, however statistical significance was not reached.
- The results from the EIS suggest that the use of the X-15 patches increased the conductivities in colon, liver, gall bladder, and stomach functioning tissues, however not enough for statistical significance

Assessment: *This study provides supportive evidence that stimulation of an acupuncture point by Y-Age Aeon patches changed a physiological measure of the conductivity of the skin.*

Study Report #5: Nazeran. H. *A Double-blind Placebo-Controlled Heart Rate Variability Investigation to Evaluate the Quantitative Effects of the LifeWave Y-Age Aeon Patch on the Autonomic Nervous System.* Feb. 2012.

Safety issues:

- No adverse events were reported.

Patch instructions and study procedures:

- Preliminary clinical research has shown that this patch starts exerting a *balancing effect* on the autonomic nervous system (ANS) within as early as 10 minutes of its application as a consequence of eliciting a *relaxation response* (creating a calm and stress-free body state). This study was to explore that and determine if it could be reproduced with a larger sample in a blinded study with placebo.
- A small wearable wireless device was used to acquire electrocardiographic (ECG) data (CleveMed BioRadio 150) to evaluate the quantitative effects of this LifeWave Patch on the ANS activity by HRV signal analysis.
- Fifty subjects were randomized to receive either placebo or the Y-age Aeon patch first, and tested under 3 conditions for a period of 20 minutes. Condition1: *Control (C)* - while wearing no Patch, Condition 2: *Placebo (P)* or *Active (A)* - after wearing either the Placebo or the Y-Age Aeon

Patch for 20 minutes, and Condition 3: *Active (A) or Placebo (P)* - after wearing either the Y-age Aeon or the Placebo Patch for 20 minutes.

- Acupoint tested:
 - Conception Vessel 6 (CV6).

Efficacy of the patch in this study:

- 60% achieved stress relief within 20 min. The degree of stress relief or relaxation response in responders due to wearing the Aeon Patch ranged from 2% to 56%. This is indicative of the fact that different individuals relax at different rates.
- Based on the data, it could be concluded that wearing the Aeon Patch for 20 min elicited an enhanced parasympathetic response and could enable the majority of the participants to achieve a reduced stress state with varying degrees. *This response could be quantified by a reduction in normalized LF/HF power.*
- The statistical results revealed that the *Aeon Patch* showed a *significant* effect ($p < 0.047$) compared to the *Placebo Patch* in reducing the *normalized LF/HF power* after 20 min with a very sizeable reduction after one hour and even further after 2 hours.

Assessment: *In summary, this double-blind-placebo controlled study shows that the Y-Age Aeon Patch worn for at least 20 min may elicit a relaxation effect and reduce stress as quantified by spectral analysis of HRV signals. Based upon these results, it is reasonable to expect wearing the Aeon Patch to cause a significant relaxation effect after 30 min in the majority of the population.*