Creating Effective Research Posters

Presented by Kristie Durham
Department of Linguistics

Sponsored by the Office of Undergraduate Research
University of Utah
OUR Mission

...to facilitate and promote undergraduate student-faculty collaborative research and creative works in all disciplines throughout the University of Utah campus.

www.our.utah.edu
Topics…
• Why present a poster?
• What is a poster session?
• What content should the poster include?
• What are some design considerations?

Personalization…
• Evaluate sample posters?
• Getting started?
• Peer review?
Today we will use example posters from past OUR presenters. Please note that any criticism is a testament to the difficulty of poster design. Whether discussed or not, each poster presented also has excellent points!
Why present a poster?
Why present a poster?

University Mission Statement

The mission of the University of Utah is to serve the people of Utah and the world through the discovery, creation and application of knowledge; through the dissemination of knowledge by teaching, publication, artistic presentation and technology transfer; and through community engagement.

http://admin.utah.edu/office_of_the_president/university-mission-statement
Why present a poster?

• Professional responsibility to disseminate research findings
• Strengthen CV
• Networking/Socialization
• Develop your understanding of your own research! How?
What is a poster session?

University of Utah Undergraduate Researchers
How is a poster presented?

Presentation
&
Conversation!
How is a poster presented?

• Practice a TWO MINUTE presentation!
• Practice speaking concisely about various sections of your poster
• Practice, practice, practice!
How is a poster presented?

• Greet visitors!
• Probe interest and/or knowledge levels
  *Carefully*
• Offer to deliver your presentation
Handling feedback & questions

• Good feedback? Take notes.
• Get contact information.

To consider…

• Undergraduate researchers can generally expect a supportive audience!
• What kind of feedback is supportive?
Difficult questions

Question:
I see you’ve chosen to use Method A, but don’t you think Method B would have been more appropriate?

Possible responses:
a. Could you tell me more about why Method A might be preferable to Method B?
b. That’s an interesting possibility. I will need to give it more consideration.
Create & Print the poster

- Variety of software (Power Point)
- Dimensions are conference specific
- Printed by various office supply/print services: call ahead!

TIP: Marriott Library Student Computing Service
  - Printing service, poster design guide, templates
  - Marriott Library>Knowledge commons>poster printing
Marriott Library Poster Template

Author1, Author2, Author3
Department1, Department2, Department3
University1, University2, University3

ABSTRACT
Do you need an abstract?

INTRODUCTION
- Provides a brief background.
- Gets the viewers interested.
- Places work in the context of the literature.
- Use bullets and graphics.

METHODS
- How did you do it and what did you use?
- You can use references.
- Think about using flowcharts and figures.

RESULTS/DISCUSSION
- This is usually the largest section & can include:
  - your conclusions.
  - Include the analyzed data here in graphic format, equations, etc.
  - Include a brief summary of results and discussion.
  - The Presenter will be providing additional details.

CONCLUSIONS
- List the major results.
- Relate to the literature.
- Discuss any new hypotheses and future work.

REFERENCES
- Use the format for your field of study.
- Reduce the amount of poster space used by:
  - Not including the title of the article.
  - Listing only the 1st author and then et al.

ACKNOWLEDGEMENTS
- Acknowledge both the people:
  - contributing to the research.
  - the agencies funding the research, attendance at the conference, etc.
What type of poster will you create?

- Scientific
- Creative
Title, Authors & Affiliations

Title:
- Length 1-2 lines
- Informative
- Avoid all capital letters

Authors:
- Include all authors & contact information
- If photos, then professional appearance
Title, Authors & Affiliations

Affiliations:
- University, department, & research group
- Website, email address
- Logos (limited)
30-40% of patients with focal epilepsy have seizures that cannot be controlled with medications. Frequency between 80-200 Hz. 

27 patients gave consent to participate in the IRB approved study. High-Frequency Analysis to determine “hot” channels: 

- Wavelet Transforms (CWTs), combined with statistical analyses, to determine channels of interest using high-frequency oscillations.
- MATLAB’s “spectrogram” for recording from intracranial electrodes.
- Short-time Fourier Transforms (Spectrograms) and Continuous Wavelet Transform (CWTs).

We propose using the advanced signal processing techniques of Intracranial Seizure Onset Zone Identification by Automated High-Frequency Oscillation Analysis in Patients with Intractable Epilepsy.

Channel 59 Raw Data, Spectrogram “Power” Analysis, Amplitude CWT Absolute Value Coefficients Analysis, Frequency-Amplitude method for the CWT analyses.

Percentage of Channels Chosen as Channels of Interest Using Spectrogram Methods: 

<table>
<thead>
<tr>
<th>Methods</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectrogram</td>
<td>30%</td>
</tr>
<tr>
<td>CWT</td>
<td>40%</td>
</tr>
</tbody>
</table>

The high percentage of channels determined by the CWT method indicates that the non-random nature of the concordance with the signal processing methods. The high percentage of channels determined by the CWT method are statistically significantly concordant with the signal processing methods.

The high percentage of channels determined by the CWT method are statistically significantly concordant with the expert localization. The percentage of channels determined by the CWT method are statistically significantly concordant with the signal processing methods.

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Abstract

• Marriott Library Poster Template includes a section for an abstract
• Do the abstract and the poster contain different content?
• Abstract is textual, poster is visual
Introduction

• Concepts necessary to understand the research question
• Importance or purpose of the work
• Cite as necessary
• State goals, hypotheses, objectives or research questions

TIP: Visually highlight research questions!
Intrauterine Growth Restriction Alters Estrogen Signaling in Rat Adipose Tissue in a Sex Dependent Manner

Danielle Holliday and Lisa Joss-Moore
Department of Pediatrics

Background

Infants that do not grow appropriately in utero suffer intrauterine growth restriction (IUGR)

IUGR increases the lifelong risk of visceral obesity which predisposes to type II diabetes, cardiovascular disease and dyslipidemia

Obesity is influenced by estrogen signaling

Methods

We hypothesize that IUGR will alter estrogen and estrogen receptors in rat adipose tissue in a sex- and depot-dependent manner

Conclusion
Methods

- Participants (number, age, recruitment method)
- Materials (stimuli, equipment, etc.)
- Procedures
How engaging in mind-focused or body-focused eastern practices affects the way people narrate challenging events
Grace Hanley and Monisha Pasupathi, Ph.D.
Department of Psychology

Methods

Participants
80 undergraduates recruited via the CSBS participant pool, average age 21.27 (SD = 3.931); 51 females, 28 males.

Materials and Measures
- Story prompts by the Foley Center for the Study of Lives
- Multidimensional Assessment of Interoceptive Awareness
- Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood
- Transgression-Related Interpersonal Motivations Inventory
- Self Compassion Scale
- Ryff Scale of Psychological Well-Being
- Story prompts by the Foley Center for the Study of Lives

Procedure
- First component: participants completed questionnaires about themselves.
- Afterwards, participants were asked to complete several 15 minute activities: a yoga sequence, an exercise regime, a meditation, or watching a series of neutral pictures.
- Second component: subjects participated in one of four possible 10-15 minute activities: a yoga sequence, an exercise regime, a meditation, or watching a series of neutral pictures.
- Second component subjects asked to narrate three types of life events: two transgressions, two victimizations, and two life turning points. Afterwards, participants were asked to complete several questionnaires about themselves.

Discussion

- Yoga shown to foster perceived growth in participants.
- Meditation shown to have a stronger effect on the degree to which participants reported growth and affect based on a 0 to 5 scale.
- Exercise shown to have a stronger, positive effect on transgressions and victimizations.
- Affect: exercise appears to have a stronger, positive effect on transgressions.
- Growth: yoga shown to have a stronger effect on the degree to which participants reported growth and affect based on a 0 to 5 scale.

Future Directions

- In order to further study the role of yoga and meditation in emotional processing, future research should include a larger sample size and more specific measures of interoceptive awareness.
- Future research could also explore the role of Eastern practices in reducing symptoms of depression and anxiety.
- Including Military Personnel: other studies, however, haven't shown as dramatic of changes in cortisol at their individual baselines. Perhaps they are more receptive to alternative treatments that lower it than non-military personnel.
Results

- Analyzed data
- Present findings in labeled tables, charts, graphs, etc.
- Use concise text to orient visitors:
  - Explain graphs
  - How do different findings relate to one another
  - Highlight key findings
Intracranial Seizure Onset Zone Identification by Automated High-Frequency Oscillation Analysis in Patients with Intractable Epilepsy

Michelle Reed\(^1\) and Helen Barkan\(^2\)

1. Department of Bioengineering, University of Utah, Salt Lake City, UT, 84112
2. Department of Neurology, University of Utah, Salt Lake City, UT, 84112

**Results**

Figure 14: The "Tukey's Honest Significant Difference" test results for the Spectrogram data show that Channel 20 has the highest mean rank compared to 89 of the 92 measured channels.

Figure 18: The "Tukey's Honest Significant Difference" test results for the CWT data show that Channel 75 has the highest mean rank of all 52 channels.

**CHANNELS OF HIGH-MEAN RANK OR HIGHEST FREQUENCY**

Figure 24: The highest-amplitude frequency comparison for the Spectrogram analysis shows that Channels 8, 21, 23 and 28 had equal high frequencies, indicating them as channels of interest.

Figure 26: The highest-amplitude frequency comparison for the CWT analysis shows that Channel 43 had the highest frequency, indicating it as a channel of interest.
Discussion/Conclusions

Clearly and concisely...
- Identify key findings
- Interpret these findings
- State any remaining questions/future directions

Consider...
- Do the findings answer the research questions?
- Is the importance of the work clear?
# Conclusion

- One new allele of trp-5, p26, has been identified by the non-Activated sperm phenotype when crossed to SHU (wam-1 trp-5 hom-5 unc-76).
- One new allele of otf-10, p26, has been identified by the non-Activated sperm phenotype when crossed to D56 (dpy-12 hom-1 otf-10).
- An interaction between melbic2490, p26, melbic2490; p26 and the strong suppressors was observed. This results suggest that sperm activation is dosage sensitive.
- The remaining strains have yet to be classified.
References & Acknowledgments

• Cite sources!
• Use appropriate style in references
• Acknowledgements are important:
  - Credit funding sources
  - Credit colleagues who have contributed time, feedback or ideas
References & Acknowledgments

**References**


**Acknowledgements**

This work was supported by the U.S. Department of Energy, Office of Basic Energy Sciences, Division of Materials Sciences and Engineering under Award #DESC0000969. The authors are indebted to M. Rahm and R. Roundy for many insightful discussions, whose theoretical work on ac-driven magnetoresistance inspired this study. We thank J. Yu for preparing the deuterated MDH-PPV.
Scientific Posters

- Should scientific posters have the exact headings *introduction*, *methods*, *results*, etc.?
- Any questions or comments?
Creative Posters

• Introduction
• Methods
• Results
• Summary/Conclusions (Discussion)
Creative Posters

- Authors, Title and Affiliations
- Introduction
  (purpose of work)
- Methods
  (what was done)
- Results & Conclusions
  (what was found and why it matters)
- References & Acknowledgments
Tell the story with…

- Thematic headings
- Visual anchors for thematic sections
- Visual Metaphor
- Text as visual element
Brown v. Board: The Racial Meridian
Hayden Smith and Ronald Coleman
Department of History

The University of Utah

Timeline of Important Segregation Cases

- Il最关键的小尺度段落文字内容。
- The end of one form of segregation, the commencement of another.

How did we become so segregated in the 21st century?

Today, 48% of students are minorities. Latinos make up the largest minority student population at 25%.

De facto segregation in a school district reflect racial segregation in the society. De jure segregation is when a school district legally establishes separate schools for whites and non-whites. De facto segregation is more prevalent in the United States. De jure segregation is a legal form of segregation. De facto segregation is a result of social and economic factors.

How are we doing with regard to segregation today?


High Court Bans School Segregation: 8-to-0 Decision Grants Time to Comply

Segregation MUST end.

Conclusion:

- Brown v. Board of Education was the first breakthrough in ending institutionalized legal segregation. After the Brown v. Board of Education decision, it took a few years for desegregation to become a reality.
- The end of one form of segregation, the commencement of another.
- How did we become so segregated in the 21st century?
Bridging the Industry Subject-Matter Gap between Software Documentation Professionals and End Users of Specialized Software

By Timothy Salato

Visual Metaphor

https://www.uhd.edu/academic/colleges/sciences/scholars/files/workshop-poster.pdf
Text as Visual Element

https://www.uhd.edu/academic/colleges/sciences/scholars/files/workshop-poster.pdf
Other design considerations

Text/Font should...

• Conform across similar sections in size and color

• Be concise and easily read:
  – Avoid long sentences
  – Use bullets or other markers
Other design considerations

**Color should...**
- Be purposeful
- Be consistent
- Draw attention to different sections of poster (white space)
- Provide sufficient contrast

**Graphics & Images should...**
- Communicate meaning
- Be informative rather than entertaining
Other design considerations

Finally…

- Use whitespace to direct attention
- Plan a logical order for poster elements
- Make the order transparent (headings, left-to-right)
**ABSTRACT:**

One grand benefit of space travel is a potential acceleration of obesity, a serious problem for a growing minority of parts of the world. Traditionally, when an individual is at any condition of poor health, weight gain is feared. In space, one could conceivably follow the same trend and become more prone to obesity. The only side effect would be the need to upgrade one's drinking water (infinite novelty). The tremendous cold of outer space seems not to offer any benefits other than being a white out. For now, we plan our missions with as long term experience in a colony of Guinea pigs (G. cavia porcellus) maintained in the International Space Station (ISS). If this experiment results in significant weight gains in space then Guinean pig research would be something to worry about. Experiments were conducted with rats weighing 20% and 50% of their weight in addition to weight loss, no weight gain was observed in any of the experiments. If a space traveler is slightly overweight, the motion sickness and weight loss effects of the mission would be negligible.

**INTRODUCTION:**

The current obesity epidemic is seen as an epidemic in the EU, with the 2009 formation and proliferation of obesity and weight loss industry, which now sees one-third of the public wearing weight loss clothes and garments. Monthly weight gain without the need to buy new clothes. Instead, exercise today for hundreds of millions of people involves only the act of wearing weight loss garments in public. Placementtranslate the competitive pressure from fat acceptance to adopt a more competitive dietary strategy (Baur 1995).

Luckily, at the same time that obesity becomes more of a niche to most Americans, people are exercising and eating healthy to maintain weight loss. However, weight loss is not always sustainable, and many people return to their former habits. This phenomenon is known as yo-yo dieting. The usual pattern is that weight loss was rapid, exercise was increased, but in the long term, the weight gained back. In addition, exercise alone is not effective in preventing weight gain. A combination of diet and exercise is necessary. However, few studies have examined the role of exercise in preventing weight gain. In this study, we aimed to determine the correlation between weight loss and exercise.

**RESULTS:**

Mean weight of pigs in space was 0.0005 ± 0.0003 g. Some variations were observed, but the overall trend remained the same. After 6 months, the pigs started to lose weight. Possible reasons for the weight loss include reduced food intake, increased energy expenditure, and decreased body fat content. The results were consistent with previous studies, indicating that space travel can lead to weight loss in pigs.

**CONCLUSIONS:**

Our study demonstrated a significant correlation between weight loss and exercise. However, we need to improve our experimental design and conduct further experiments to understand the underlying mechanisms. In conclusion, exercise is an effective way to prevent weight gain in pigs in space. Further studies are needed to determine the long-term effects of space travel on weight and exercise.

**ACKNOWLEDGEMENTS:**

I am grateful for generous support from the National Research Foundation, Black Horse Foundation, and the High Frontier Education Initiative. Support for this study was provided by SPACE EXE, the wheelchair-bound group known for advocacy and support for people living with disabilities. This work was supported by the Cog Foundation for generously donating animals care after the conclusion of the study.

**LITERATURE CITED:**


Questions?
HISTONE MODIFICATIONS ARE ALTERED IN THE RENAL CORTEX OF VENTILATED PRETERM LAMBS

Adam M. Blair and Kurt H. Albertine
Division of Neonatology

Preterm Birth and Kidney Injury
- Preterm birth happens while the kidneys are Developmentally immature
- Nephrogenesis finishes at 36 weeks gestation
- Low birth weight, intrauterine growth restriction and prematurity leads to decreased total nephron number
- Brenner hypothesis: fewer nephrons leads to hypertension and chronic kidney disease
- Does ventilation affect nephrogenesis?

New Evidence of Kidney Injury
- 3 d of intermittent mechanical ventilation (IMV) leads to
- Lower surface density of glomerular capillaries in the renal cortex
- Compared to high-frequency nasal ventilation (HFNV) of preterm lambs
- Potential mechanism
- Epigenetic alteration of regulation of gene expression

Preterm Lamb Model
- Amniotic fluids
- Delivered at 131 days (Term at 148 days)
- Intubated and treated with surfactant and caffeine citrate
- Mechanical ventilation (IMV) - 3 hours
- Exhaled

HFNV (VIB呼吸机ventilator)

- Ventricular assist device
- Mechanical ventilation; Neonatal LNPV, low-pressure, high-frequency ventilation

Protocol for Former Preterm Lambs

Histone Modifications in Kidney Cortex
- Histone covalent modifications are altered in the kidney of preterm lambs after IMV and HFNV
- Some alterations persist up to 18 wk of recovery
- We speculate that the fidelity and persistence of the alterations may influence renal structure and function later in life

Conclusion and Speculation

Supported by
HL110002
HL062875
Bangerter-Foundation, Switzerland
University of Utah UROP Assistantship
Mutational Analysis of the Serine Chemoreceptor in *Escherichia coli*

Jordan Fenlon and John S. Parkinson

Department of Biology

THE UNIVERSITY OF UTAH

E. coli movement is controlled by flagellar rotation.

**CCM RUN**
no chemosensor gradient; random walk

**CCM TUMBLE**
attractant gradient; biased random walk

A413 is an alanine residue in the two-state signaling model for mutant chemoreceptors.

**P**
OFF
isolated

**Q**
OFF-shifted

**E**
ON
isolated

**M**
OFF-shifted

**A**
ON-shifted

**N**

**R**

**L**

**Y**

**K**

**H**

**G**

**C**

**F**

**W**

**CH3**

**+CH3**

Two-state signaling model for mutant A413 chemoreceptors.

Structural changes at Tar residue A413 damage signaling behavior by shifting output toward the kinase-Off or kinase-ON state.

These experiments were done in a cell strain that lacked sensory adaptation ability. Now I need to test the ability of these mutant receptors to undergo sensory adaptation.

**OFF**

**+SER**

**ON**

---

*Department of Biology*

*The University of Utah*
Metabolic Impacts of Cigarette Smoke on RPE and Muller Cells of Complement Compromised Mice
Alexandra D. Butler and Bryan W. Jones
Ophthalmology
THE UNIVERSITY OF UTAH

Purpose

Purpose: To investigate metabolic changes in Müller Cells and RPE of mice exposed to cigarette smoke and to examine the effects of complement inhibition on these changes.

Background

Background: Age-related macular degeneration (AMD) is one of the leading causes of blindness worldwide. The alternative, classical, and common terminal pathways of the complement system are involved in AMD. The complement component 3 (C3) is a key protein in these pathways. Removal of C3 eliminates all biological effects of the complement system. Removal of C3 and C3 knockout mice have shown that the complement cascade is involved in AMD.

Methods

Methods: Mice were exposed to cigarette smoke using an automated smoking machine. They were exposed for 6 hours/day, 5 days/week for 6 months. Age-matched room air exposed mice served as controls. Müller Cells were isolated and analyzed using Western blotting for CRALBP, E, G, J, Q, and TT. The importance of the RPE cannot be understated in the maintenance of photoreceptors while the retina is repaired. Glutamine and glutathione are known to be involved in metabolic stress response & osmoregulation. Glutamine and glutathione increased in photoreceptor cell bodies.

Results

Results: Shown below are some images of an extreme human retinal fundoscopic exam illustrating normal AMD. Shown above are images of a normal human retinal fundoscopic exam illustrating normal AMD. The mouse eye is remarkably similar to the human eye, with very similar small molecular values in both.

Conclusions

Conclusions: The metabolic impacts of cigarette smoke on Müller Cells and RPE of mice exposed to cigarette smoke and to examine the effects of complement inhibition on these changes. The complete blockade of the complement system via the common terminal pathway (C3 knockout) has a more substantial impact on the inner segments or photoreceptor cell bodies. Müller Cells are perhaps best positioned to respond to environmental insults. Glutamine and glutathione increased in photoreceptor cell bodies.

Acknowledgments

Acknowledgments: This research was supported by the National Eye Institute (R01EY022717) and the Department of Veterans Affairs.
ABSTRACT: With increasing survival rates and longevity of heart transplant (HTx) recipients, quality of life post-HTx is of growing importance. HTx results in complete denervation of the heart which contributes to limited exercise capacity and difficulty performing some activities of daily living. Although, with time post-HTx, reinnervation has been suggested, there is little functional evidence to support this concept.

PURPOSE: Using passive leg movement (PLM), a model that isolates type III mechanoreceptors and stimulates a heart rate (HR) response, this study sought to gather evidence of cardiac reinnervation in a population of HTx recipients with time following transplantation.

METHODS: Measurements of HR were recorded during PLM in 39 HTx recipients (62 ± 2 yrs) that ranged from 1 month to 27 years post-HTx and 10 healthy age-matched controls (60 ± 3 yrs).

RESULTS: The HR response to PLM was significantly attenuated in the HTx recipients (3 ± 2 bpm, ∆1%) compared to the controls (7 ± 1 bpm, ∆13%). However, there was no relationship between the time post-HTx and HR response, whether measured as maximum HR, absolute change from baseline, or percent change from baseline. CONCLUSION: Despite the inclusion of a large cohort of HTx recipients with a wide range of times post-HTx, these data do not provide any evidence of functional cardiac reinnervation in this population.

METHODS: Participants: Thirty-nine HTx recipients and ten healthy age-matched controls were recruited either by word of mouth or in the HTx clinics at the University of Utah and the Salt Lake City VA Medical Center. The protocol was approved by both institutions and written informed consent was obtained from all participants.

Procedure: Subjects rested supine for approximately 20 minutes prior to the start of data collection and remained in this position throughout the entire protocol. The protocol consisted of a 60 second resting baseline followed by a two minute session of passive leg extension. The passive exercise was achieved by moving the subject’s lower leg through a motion of 90 to 180 degree knee joint angle at a rate of 1 Hz. A metronome was used to maintain cadence. Throughout the protocol heart rate form the Finometer (Finapres Medical Systems BV, Amsterdam, The Netherlands) underwent A/D conversion and was simultaneously acquired (200 Hz) using commercially available data acquisition software (AcqKnowledge, Biopac Systems).

CONCLUSION: No relationship between the time post-HTx and the HR response, whether measured as maximum HR, absolute change from baseline, or percent change from baseline.

HR response to PLM is reduced in the HTx recipients compared to controls.

Table 1: Subject Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Controls</th>
<th>HTx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yrs</td>
<td>60 ± 3</td>
<td>62 ± 2</td>
</tr>
<tr>
<td>Weight, kg</td>
<td>82 ± 3</td>
<td>90 ± 3</td>
</tr>
<tr>
<td>Height, cm</td>
<td>178 ± 2</td>
<td>175 ± 2</td>
</tr>
<tr>
<td>Body mass index, kg/m²</td>
<td>26 ± 1</td>
<td>33 ± 2</td>
</tr>
<tr>
<td>Systolic blood pressure, mmHG</td>
<td>138 ± 3</td>
<td>134 ± 3</td>
</tr>
<tr>
<td>Diastolic blood pressure, mmHG</td>
<td>80 ± 2</td>
<td>76 ± 2</td>
</tr>
</tbody>
</table>

Table 2: Characteristics Pertinent to the HTx Recipient Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Months post-HTx</td>
<td>106 ± 14</td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ischemic</td>
<td>22/39</td>
<td></td>
</tr>
<tr>
<td>Nonischemic</td>
<td>17/39</td>
<td></td>
</tr>
<tr>
<td>Left ventricular ejection fraction, %</td>
<td>62 ± 1</td>
<td></td>
</tr>
<tr>
<td>Diabetic, No. of all cases</td>
<td>19/39</td>
<td></td>
</tr>
<tr>
<td>Medication, No. of all cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>19/39</td>
<td></td>
</tr>
<tr>
<td>Tacrolimus</td>
<td>18/39</td>
<td></td>
</tr>
<tr>
<td>Azathioprine</td>
<td>5/39</td>
<td></td>
</tr>
<tr>
<td>Mycophenolic Acid</td>
<td>26/39</td>
<td></td>
</tr>
<tr>
<td>Steroids</td>
<td>5/39</td>
<td></td>
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<tr>
<td>Prednisone</td>
<td>16/39</td>
<td></td>
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<tr>
<td>Betablocker</td>
<td>14/39</td>
<td></td>
</tr>
<tr>
<td>ACE</td>
<td>6/39</td>
<td></td>
</tr>
<tr>
<td>ACE - Inhibitor</td>
<td>17/39</td>
<td></td>
</tr>
<tr>
<td>Statin</td>
<td>34/39</td>
<td></td>
</tr>
<tr>
<td>Diuretic</td>
<td>12/39</td>
<td></td>
</tr>
<tr>
<td>Calcium channel blocker</td>
<td>16/39</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Heart rate (HR) response expressed in absolute change (A) and percent change from baseline (B) in controls and heart transplant (HTx) recipients.

Figure 1. Methodology utilized during passive leg movement (PLM).

Figure 2. The relationship between time post-heart transplant (post-HTx) and heart rate (HR) response.

Figure 3. Heart rate (HR) response expressed in absolute change (A) and percent change from baseline (B) in controls and heart transplant (HTx) recipients.

Conclusion: These data do not reveal any evidence of cardiac reinnervation in the HTx recipients.

Cardiac Reinnervation In Heart Transplant Recipients Assessed By Mechanoreceptor Stimulation

Fumina Kobayashi, Dr. Melissa A.H. Witman, and Dr. Russell S. Richardson
Department of Exercise and Sport Science

Table 1. Subject Characteristics

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<tr>
<td>Diastolic blood pressure, mmHG</td>
<td>80 ± 2</td>
<td>76 ± 2</td>
</tr>
</tbody>
</table>

Table 2: Characteristics Pertinent to the HTx Recipient Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Months post-HTx</td>
<td>106 ± 14</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Ischemic</td>
<td>22/39</td>
</tr>
<tr>
<td>Nonischemic</td>
<td>17/39</td>
</tr>
<tr>
<td>Left ventricular ejection fraction, %</td>
<td>62 ± 1</td>
</tr>
<tr>
<td>Diabetic, No. of all cases</td>
<td>19/39</td>
</tr>
<tr>
<td>Medication, No. of all cases</td>
<td></td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>19/39</td>
</tr>
<tr>
<td>Tacrolimus</td>
<td>18/39</td>
</tr>
<tr>
<td>Azathioprine</td>
<td>5/39</td>
</tr>
<tr>
<td>Mycophenolic Acid</td>
<td>26/39</td>
</tr>
<tr>
<td>Steroids</td>
<td>5/39</td>
</tr>
<tr>
<td>Prednisone</td>
<td>16/39</td>
</tr>
<tr>
<td>Betablocker</td>
<td>14/39</td>
</tr>
<tr>
<td>ACE</td>
<td>6/39</td>
</tr>
<tr>
<td>ACE - Inhibitor</td>
<td>17/39</td>
</tr>
<tr>
<td>Statin</td>
<td>34/39</td>
</tr>
<tr>
<td>Diuretic</td>
<td>12/39</td>
</tr>
<tr>
<td>Calcium channel blocker</td>
<td>16/39</td>
</tr>
</tbody>
</table>

Table 3: Heart rate (HR) response expressed in absolute change (A) and percent change from baseline (B) in controls and heart transplant (HTx) recipients.

Figure 1. Methodology utilized during passive leg movement (PLM).

Figure 2. The relationship between time post-heart transplant (post-HTx) and heart rate (HR) response.

Figure 3. Heart rate (HR) response expressed in absolute change (A) and percent change from baseline (B) in controls and heart transplant (HTx) recipients.

Conclusion: These data do not reveal any evidence of cardiac reinnervation in the HTx recipients.
Contact Us

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Thank you!