Analysis of Tissue Weights from HFD/Dexamethasone Studies

Innocence Harvey and Dave Bridges

April 7, 2017

Contents

Data Entry

This script generates figures from the tissue weights found in ../../data/raw/HFD and Chow Tissue Weights.csv. This file is located in /Users/davebrid/Documents/GitHub/CushingAcromegalyStudy/scripts/scripts-obesity and was most recently updated on Tue Aug 8 19:28:21 2017.

Number of Animals

Table 1: Number of mice in each group

Status	Diet	Treatment	Number
Fasted	NCD	Water	8
Fasted	NCD	Dexamethasone	8
Fasted	HFD	Water	22
Fasted	HFD	Dexamethasone	12
Fed	NCD	Water	4
Fed	NCD	Dexamethasone	4

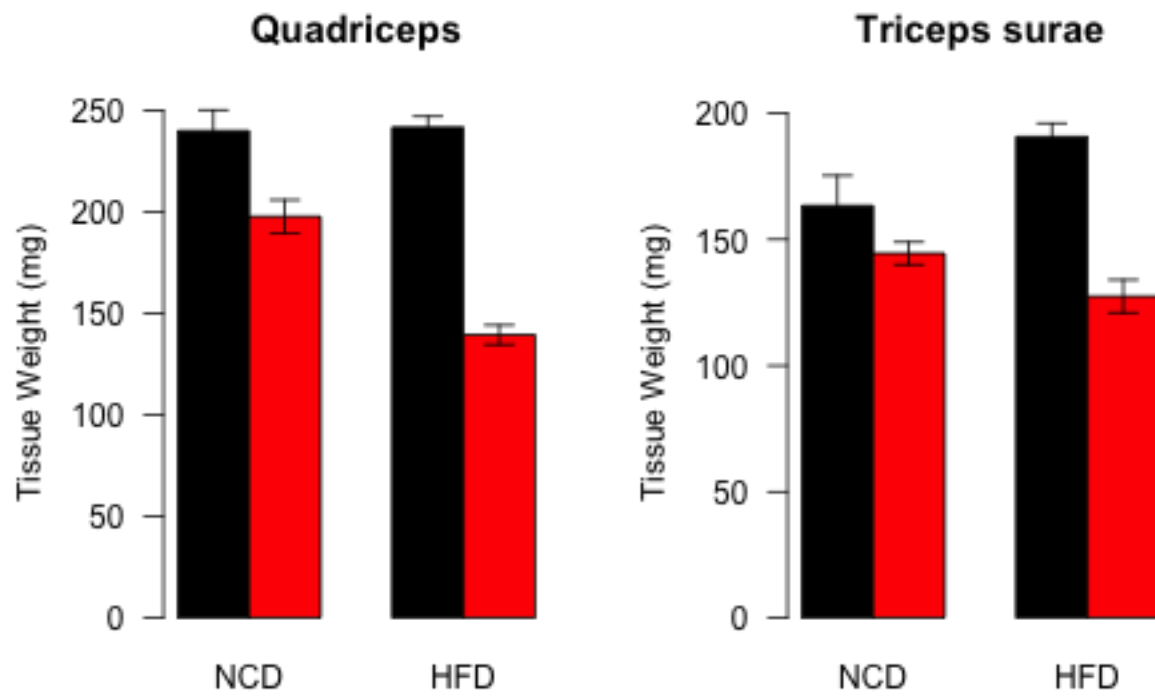## Summary Data

The remainder of this analysis is only for Fasted animals

Table 2: Averaged Values

Diet	Treatment	iWAT_mean.na	eWAT_mean.na	TS_mean.na	Quad_mean.na
NCD	Water	141	187	163	240
NCD	Dexamethasone	111	173	144	198
HFD	Water	841	1136	191	242
HFD	Dexamethasone	287	464	127	140

Muscle Barplots

Adipose Barplots
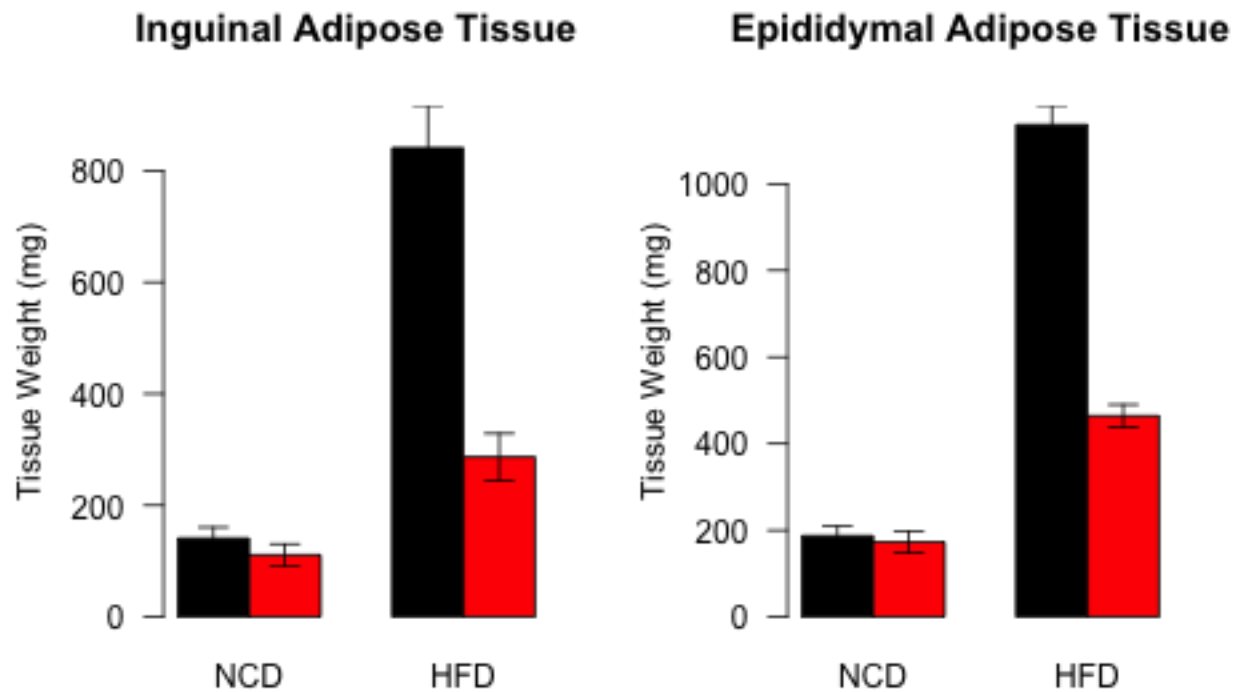
Analysis of Adipose Tissue Weights

We observed reductions in both iWAT and eWAT with HFD/Dexamethasone. This included a 65.888 reduction in iWAT mass and a 59.16 reduction in eWAT mass.

Session Information

```
## R version 3.3.0 (2016-05-03)
## Platform: x86_64-apple-darwin13.4.0 (64-bit)
## Running under: OS X 10.12.6 (unknown)
##
## locale:
## [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
## [1] forcats_0.2.0 readr_1.1.0   dplyr_0.5.0   tidyr_0.6.1   knitr_1.15.1
##
```

```
## loaded via a namespace (and not attached):
##  [1] Rcpp_0.12.10    digest_0.6.12    rprojroot_1.2    assertthat_0.1
##  [5] R6_2.2.0        DBI_0.6-1        backports_1.0.5 magrittr_1.5
##  [9] evaluate_0.10   highr_0.6        stringi_1.1.3   lazyeval_0.2.0
## [13] rmarkdown_1.6   tools_3.3.0      stringr_1.2.0   hms_0.3
## [17] yaml_2.1.14     htmltools_0.3.5 tibble_1.3.0
```