Biomarker\_analysis

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## Df Sum Sq Mean Sq F value Pr(>F)  
## DSPN\_dia 2 8.1 4.047 0.798 0.454  
## Residuals 73 370.2 5.072   
## 7 observations deleted due to missingness

## Tukey multiple comparisons of means  
## 95% family-wise confidence level  
##   
## Fit: aov(formula = NfL ~ DSPN\_dia, data = NCS\_biomark)  
##   
## $DSPN\_dia  
## diff lwr upr p adj  
## 1-0 0.6080264 -0.8747069 2.0907598 0.5911014  
## 2-0 -0.1042975 -1.7110239 1.5024289 0.9867940  
## 2-1 -0.7123240 -2.2142782 0.7896302 0.4960373

## diabetes and neuropathy status n mean range st.dev. NA NA NA  
## 1 0 23 0 5.237674 0 3.075612 0 8.001849  
## 2 1 31 1 5.845701 1 2.349035 1 14.306960  
## 3 2 22 2 5.133377 2 2.116300 2 13.240036  
## NA NA  
## 1 0 1.378280  
## 2 1 2.547039  
## 3 2 2.524256

## Df Sum Sq Mean Sq F value Pr(>F)   
## DSPN\_dia 2 219582 109791 4.541 0.0138 \*  
## Residuals 73 1764881 24176   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
## 7 observations deleted due to missingness

## Tukey multiple comparisons of means  
## 95% family-wise confidence level  
##   
## Fit: aov(formula = B12 ~ DSPN\_dia, data = NCS\_biomark)  
##   
## $DSPN\_dia  
## diff lwr upr p adj  
## 1-0 38.47686 -63.896894 140.8506 0.6425463  
## 2-0 135.21146 24.276739 246.1462 0.0129167  
## 2-1 96.73460 -6.966231 200.4354 0.0725528

## diabetes and neuropathy status n mean min max st.dev. NA NA NA  
## 1 0 23 0 309.9522 0 195.9 0 445.5 0  
## 2 1 31 1 348.4290 1 201.1 1 567.8 1  
## 3 2 22 2 445.1636 2 212.0 2 1045.7 2  
## NA  
## 1 62.60554  
## 2 118.94801  
## 3 244.38402

## Df Sum Sq Mean Sq F value Pr(>F)  
## DSPN\_dia 2 0.0201 0.010048 1.169 0.316  
## Residuals 72 0.6188 0.008595   
## 8 observations deleted due to missingness

## Tukey multiple comparisons of means  
## 95% family-wise confidence level  
##   
## Fit: aov(formula = MMA ~ DSPN\_dia, data = NCS\_biomark)  
##   
## $DSPN\_dia  
## diff lwr upr p adj  
## 1-0 0.01072464 -0.05076504 0.07221431 0.9085666  
## 2-0 -0.02851779 -0.09468149 0.03764592 0.5595817  
## 2-1 -0.03924242 -0.10151811 0.02303326 0.2932265

## diabetes and neuropathy status n mean min max st.dev. NA NA NA  
## 1 0 23 0 0.1526087 0 0.06 0 0.36 0  
## 2 1 30 1 0.1633333 1 0.07 1 0.61 1  
## 3 2 22 2 0.1240909 2 0.06 2 0.33 2  
## NA  
## 1 0.08102847  
## 2 0.11612518  
## 3 0.06299351

## Df Sum Sq Mean Sq F value Pr(>F)   
## DSPN\_dia 2 27167 13583 3.32 0.0417 \*  
## Residuals 73 298663 4091   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
## 7 observations deleted due to missingness

## Tukey multiple comparisons of means  
## 95% family-wise confidence level  
##   
## Fit: aov(formula = holoTC ~ DSPN\_dia, data = NCS\_biomark)  
##   
## $DSPN\_dia  
## diff lwr upr p adj  
## 1-0 13.58065 -28.532866 55.69416 0.7216011  
## 2-0 47.57273 1.937488 93.20797 0.0390913  
## 2-1 33.99208 -8.667351 76.65152 0.1441351

## diabetes and neuropathy status n mean min max st.dev. NA NA NA  
## 1 0 23 0 77.40000 0 25.7 0 190.0 0  
## 2 1 31 1 90.98065 1 23.9 1 225.8 1  
## 3 2 22 2 124.97273 2 43.0 2 444.2 2  
## NA  
## 1 41.69406  
## 2 51.90284  
## 3 92.47934

#Median(range) tabel   
  
load(here::here("data/med\_rang.rda"))  
  
library(tidyverse)  
library(kableExtra)

##   
## Attaching package: 'kableExtra'

## The following object is masked from 'package:dplyr':  
##   
## group\_rows

library(flextable)

##   
## Attaching package: 'flextable'

## The following objects are masked from 'package:kableExtra':  
##   
## as\_image, footnote

## The following object is masked from 'package:purrr':  
##   
## compose

ft\_med\_rang <- flextable(med\_rang, cwidth=1.5,  
 cheight = 0.25) %>%   
 set\_caption(caption = "Table 3: Concentration of plasma biomarkers in participants with Type 1 diabetes and neuropathy, with Type 1 diabetes without neuropathy and in control group") %>%   
 theme\_vanilla() %>%   
 add\_footer\_lines("Median(range). \*ANOVA-test") %>%   
 color(part = "footer", color = "#666666") %>%   
 bold(i=1, j="p\*") %>%   
 bold(i=3, j="p\*") %>%   
 autofit()   
   
  
ft\_med\_rang

**Table** : Table 3: Concentration of plasma biomarkers in participants with Type 1 diabetes and neuropathy, with Type 1 diabetes without neuropathy and in control group

| **Biomarker** | **Controls (N=23)** | **Diabetes w/o neuropathy (N=31)** | **Diabetes with neuropathy (N=22)** | **p\*** |
| --- | --- | --- | --- | --- |
| B12 | 309.95 (195.9-445.5) | 348.43 (201.1-567.8) | 445.16 (212.0-1045.7) | **0.01** |
| MMA | 0.15 (0.06-0.36) | 0.16 (0.07-0.61) | 0.12 (0.06-0.33) | 0.30 |
| HoloTC | 77.40 (25.7-190.0) | 90.98 (23.9-225.8) | 124.97 (43.0-444.2) | **0.04** |
| NfL | 5.24 (3.07-8.00) | 5.85 (2.35-14.31) | 5.13 (2.12-13.24) | 0.50 |
| Median(range). \*ANOVA-test | | | | |

