## Groep P5-P8

Conditie 1 = corticosteron

Conditie 2 = mifepreston

Conditie 3 = 17AAG

Conditie n = negatieve controle (geen ligand toegevoegd)

Conditie p = positieve controle (cortisol)

**Beschrijvende statistiek**

Hier is alleen de kolom percentage van belang.

Bij conditie zie je op hoeveel n (resultaten van hoeveel duo’s) de resultaten zijn gebaseerd.

df$conditie: 1

 dekglas conditie value percentage

 Min. :123.0 1:6 Min. : 2.00 Min. :0.2000

 1st Qu.:124.2 2:0 1st Qu.: 7.00 1st Qu.:0.4196

 Median :125.5 3:0 Median :13.50 Median :0.5000

 Mean :125.5 n:0 Mean :14.17 Mean :0.5720

 3rd Qu.:126.8 p:0 3rd Qu.:20.75 3rd Qu.:0.7545

 Max. :128.0 Max. :28.00 Max. :1.0000

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df$conditie: 2

 dekglas conditie value percentage

 Min. :129.0 1:0 Min. : 7.00 Min. :0.7857

 1st Qu.:130.2 2:6 1st Qu.:11.75 1st Qu.:0.8651

 Median :131.5 3:0 Median :14.50 Median :0.8990

 Mean :131.5 n:0 Mean :15.67 Mean :0.9026

 3rd Qu.:132.8 p:0 3rd Qu.:18.75 3rd Qu.:0.9585

 Max. :134.0 Max. :27.00 Max. :1.0000

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df$conditie: 3

 dekglas conditie value percentage

 Min. :135.0 1:0 Min. : 3.00 Min. :0.00000

 1st Qu.:136.8 2:0 1st Qu.: 6.50 1st Qu.:0.02459

 Median :138.5 3:8 Median :10.00 Median :0.21773

 Mean :138.5 n:0 Mean :24.12 Mean :0.24603

 3rd Qu.:140.2 p:0 3rd Qu.:46.25 3rd Qu.:0.50000

 Max. :142.0 Max. :61.00 Max. :0.50000

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df$conditie: n

 dekglas conditie value percentage

 Min. :143.0 1: 0 Min. : 2.00 Min. :0.00000

 1st Qu.:146.8 2: 0 1st Qu.: 6.50 1st Qu.:0.00000

 Median :150.5 3: 0 Median :13.50 Median :0.09707

 Mean :150.5 n:16 Mean :12.81 Mean :0.19233

 3rd Qu.:154.2 p: 0 3rd Qu.:17.25 3rd Qu.:0.21454

 Max. :158.0 Max. :39.00 Max. :1.00000

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df$conditie: p

 dekglas conditie value percentage

 Min. :159.0 1: 0 Min. : 3.00 Min. :0.3333

 1st Qu.:164.0 2: 0 1st Qu.: 8.00 1st Qu.:0.8667

 Median :168.0 3: 0 Median :12.00 Median :0.9286

 Mean :167.9 n: 0 Mean :13.29 Mean :0.8888

 3rd Qu.:172.0 p:17 3rd Qu.:15.00 3rd Qu.:1.0000

 Max. :176.0 Max. :35.00 Max. :1.0000

**Assumpties testen**

df$conditie: 1

 Shapiro-Wilk normality test

data: dd[x, ]

W = 0.9397, p-value = 0.6568

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df$conditie: 2

 Shapiro-Wilk normality test

data: dd[x, ]

W = 0.97131, p-value = 0.9011

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df$conditie: 3

 Shapiro-Wilk normality test

data: dd[x, ]

W = 0.74285, p-value = 0.006806

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df$conditie: n

 Shapiro-Wilk normality test

data: dd[x, ]

W = 0.73387, p-value = 0.0004088

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df$conditie: p

 Shapiro-Wilk normality test

data: dd[x, ]

W = 0.68559, p-value = 7.974e-05

H0 = de data is normaal verdeeld

HA = de data is niet normaal verdeeld

Niet alle p-waarden zijn boven de 0,05. Dus niet alle condities zijn normaal verdeeld 🡪 non-parametrisch testen.

(Levene-test doet het niet bij mij…)

**Hypothese toetsen (Kruskal-Wallis en post-hoc)**

Conditie 1 = cortisosteron

Kruskal-Wallis test for condition 1 and controls

 Kruskal-Wallis rank sum test

data: x$percentage by x$conditie

Kruskal-Wallis chi-squared = 21.925, df = 2, p-value = 1.734e-05

P<0,05 dus het percentage translocatie in de positieve controle, negatieve controle en corticosteron is niet gelijk.

Condition 1 and controls

 Pairwise comparisons using Tukey and Kramer (Nemenyi) test

 with Tukey-Dist approximation for independent samples

data: x$percentage and x$conditie

 1 n

n 0.14 -

p 0.30 9.8e-06

P value adjustment method: none

Het percentage translocatie bij corticosteron verschilt niet van de positieve controle (p=0.30).

Het percentage translocatie bij corticosteron verschilt niet van de negatieve controle (p=0.14).

Conditie 2 = mifepreston

Kruskal-Wallis test for condition 2 and controls

 Kruskal-Wallis rank sum test

data: x$percentage by x$conditie

Kruskal-Wallis chi-squared = 21.856, df = 2, p-value = 1.795e-05

P<0,05 dus het percentage translocatie in de positieve controle, negatieve controle en mifepreston is niet gelijk.

Condition 2 and controls

 Pairwise comparisons using Tukey and Kramer (Nemenyi) test

 with Tukey-Dist approximation for independent samples

data: x$percentage and x$conditie

 2 n

n 0.0095 -

p 0.9491 2.6e-05

P value adjustment method: none

Het percentage translocatie bij mifepreston verschilt niet van de positieve controle (p=0.9491).

Het percentage translocatie bij mifepreston verschilt wel van de negatieve controle (p=0.0095).

Conditie 3 = 17AAG

Kruskal-Wallis test for condition 3 and controls

 Kruskal-Wallis rank sum test

data: x$percentage by x$conditie

Kruskal-Wallis chi-squared = 24.01, df = 2, p-value = 6.112e-06

P<0,05 dus het percentage translocatie in de positieve controle, negatieve controle en 17-AAG is niet gelijk.

Condition 3 and controls

 Pairwise comparisons using Tukey and Kramer (Nemenyi) test

 with Tukey-Dist approximation for independent samples

data: x$percentage and x$conditie

 3 n

n 0.9758 -

p 0.0016 1.9e-05

P value adjustment method: none

Het percentage translocatie bij 17-AAG verschilt van de positieve controle (p=0.0016).

Het percentage translocatie bij 17-AAG verschilt niet van de negatieve controle (p=0.9758).

Alle condities testen

Kruskall-Wallis test for all conditions

 Kruskal-Wallis rank sum test

data: df$percentage by df$conditie

Kruskal-Wallis chi-squared = 31.42, df = 4, p-value = 2.513e-06

P<0,05 dus het percentage translocatie de verschillende groepen is niet gelijk.

All conditions

 Pairwise comparisons using Tukey and Kramer (Nemenyi) test

 with Tukey-Dist approximation for independent samples

data: df$percentage and df$conditie

 1 2 3 n

2 0.7481 - - -

3 0.5584 0.0414 - -

n 0.3322 0.0078 0.9997 -

p 0.4714 0.9998 0.0019 1.5e-05

P value adjustment method: none

**Plotjes**



