

Replace with Main Title

Your Name

2017-02-23

```
> primary_data <-  
+   readXL("C:/Users/Takayuki Kato/iCloudDrive/アボット研究/PLOS ONE 投  
+   rownames=FALSE, header=TRUE, na="", sheet="primary data.csv",  
+   stringsAsFactors=TRUE)
```

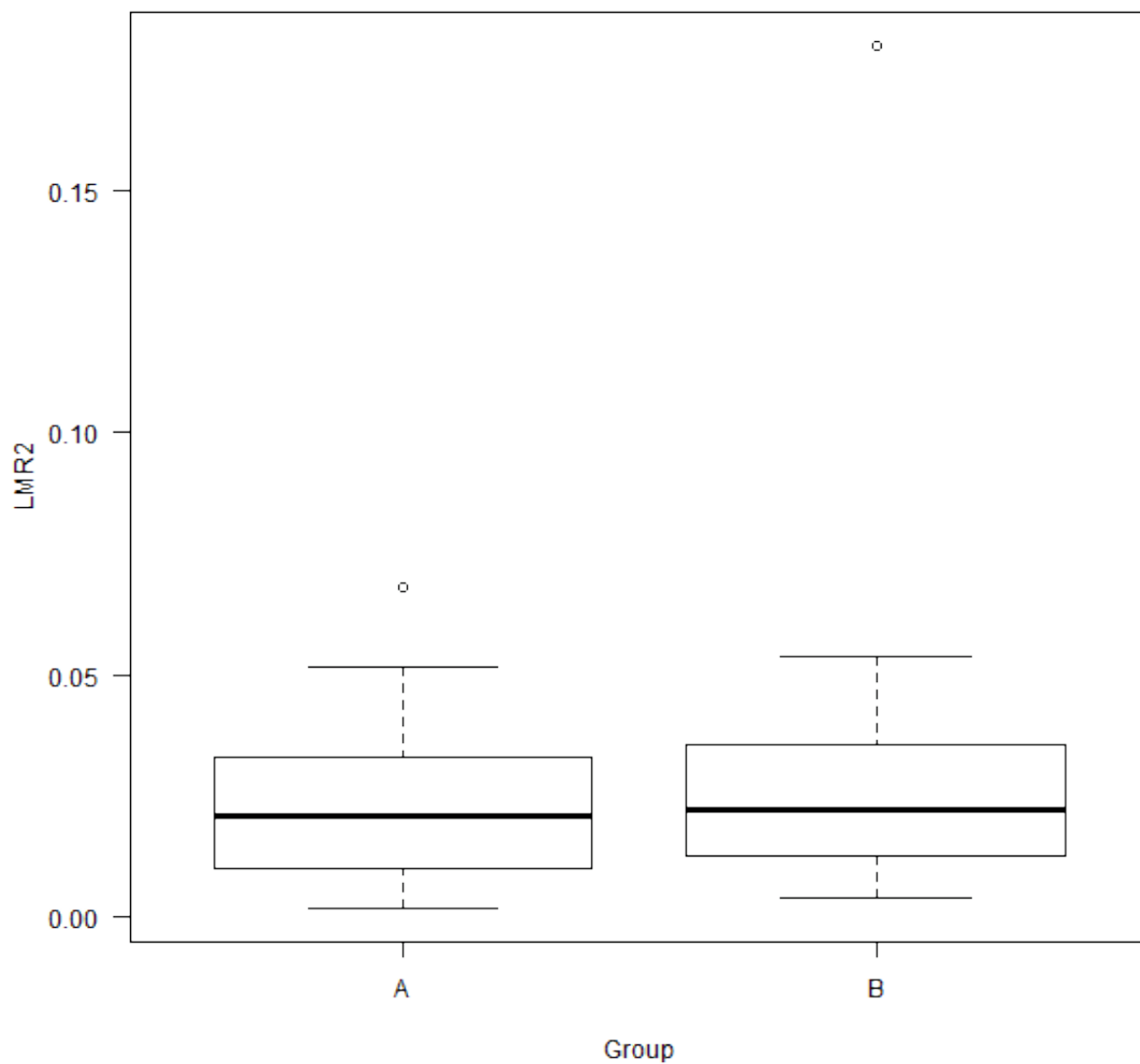
```
DEFINEDNAME: 21 00 00 01 0b 00 00 00 01 00 00 00 00 00 0d 3b 00 00  
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```

```
> #####Two-sample t-test#####  
> group.names <- NULL  
> group.means <- NULL  
> group.sds <- NULL  
> group.p <- NULL  
> res <- NULL  
> (res <- t.test(LMR2~factor(Group), alternative='two.sided', conf.level  
+   var.equal=FALSE, data=primary_data))
```

welch Two Sample t-test

```
data: LMR2 by factor(Group)  
t = -0.86721, df = 17.324, p-value = 0.3977  
alternative hypothesis: true difference in means is not equal to 0  
95 percent confidence interval:  
-0.03800393 0.01584036  
sample estimates:  
mean in group A mean in group B  
0.02400967 0.03509145
```

```
> windows(width=7, height=7); par(lwd=1, las=1, family="sans", cex=1,  
+ 0)  
> boxplot(LMR2~ factor(Group), ylab="LMR2", xlab="Group", data=primar
```



```

> bar.means <- tapply(primary_data$LMR2, factor(primary_data$Group),
+   na.rm=TRUE)
> bar.sds <- tapply(primary_data$LMR2, factor(primary_data$Group), sc
> group.names <- c(group.names, "Group=A")
> group.means <- c(group.means, bar.means[1])
> group.sds <- c(group.sds, bar.sds[1])
> group.p <- c(group.p, signif(res$p.value,digits=3))
> group.names <- c(group.names, "Group=B")
> group.means <- c(group.means, bar.means[2])
> group.sds <- c(group.sds, bar.sds[2])
> group.p <- c(group.p, "")
> summary.ttest <- NULL
> summary.ttest <- data.frame(mean=group.means, sd=group.sds, p.value
> rownames(summary.ttest) <- group.names
> colnames(summary.ttest) <- gettextRcmdr(colnames(summary.ttest))
> summary.ttest

```

	mean	sd	p.value
Group=A	0.02400967	0.01827999	0.398
Group=B	0.03509145	0.04418084	

```

> #####Two-sample t-test#####
> group.names <- NULL
> group.means <- NULL
> group.sds <- NULL
> group.p <- NULL
> res <- NULL
> (res <- t.test(LMR3~factor(Group), alternative='two.sided', conf.level
+   var.equal=FALSE, data=primary_data))

```

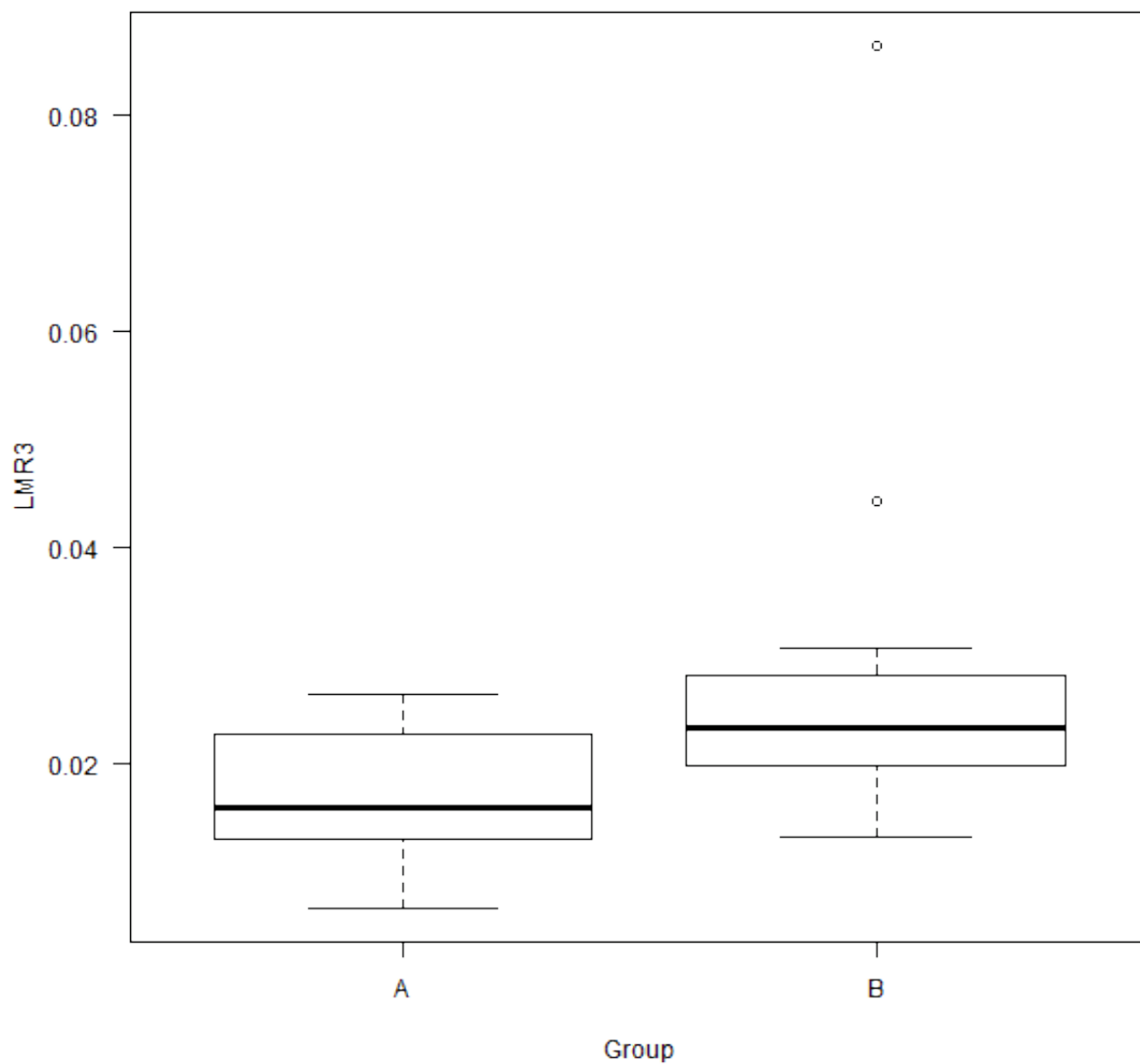
```

welch Two Sample t-test

data:  LMR3 by factor(Group)
t = -2.1496, df = 15.686, p-value = 0.04755
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -0.0220759132 -0.0001358381
sample estimates:
mean in group A mean in group B
 0.01715622      0.02826209

```

```
> windows(width=7, height=7); par(lwd=1, las=1, family="sans", cex=1,  
+ 0)  
> boxplot(LMR3~ factor(Group), ylab="LMR3", xlab="Group", data=primar
```



```

> bar.means <- tapply(primary_data$LMR3, factor(primary_data$Group),
+   na.rm=TRUE)
> bar.sds <- tapply(primary_data$LMR3, factor(primary_data$Group), sc
> group.names <- c(group.names, "Group=A")
> group.means <- c(group.means, bar.means[1])
> group.sds <- c(group.sds, bar.sds[1])
> group.p <- c(group.p, signif(res$p.value,digits=3))
> group.names <- c(group.names, "Group=B")
> group.means <- c(group.means, bar.means[2])
> group.sds <- c(group.sds, bar.sds[2])
> group.p <- c(group.p, "")
> summary.ttest <- NULL
> summary.ttest <- data.frame(mean=group.means, sd=group.sds, p.value
> rownames(summary.ttest) <- group.names
> colnames(summary.ttest) <- gettextRcmdr(colnames(summary.ttest))
> summary.ttest

```

	mean	sd	p.value
Group=A	0.01715622	0.005944537	0.0475
Group=B	0.02826209	0.018394052	

```

> #####Two-sample t-test#####
> group.names <- NULL
> group.means <- NULL
> group.sds <- NULL
> group.p <- NULL
> res <- NULL
> (res <- t.test(Man.2~factor(Group), alternative='two.sided', conf.1
+   var.equal=FALSE, data=primary_data))

```

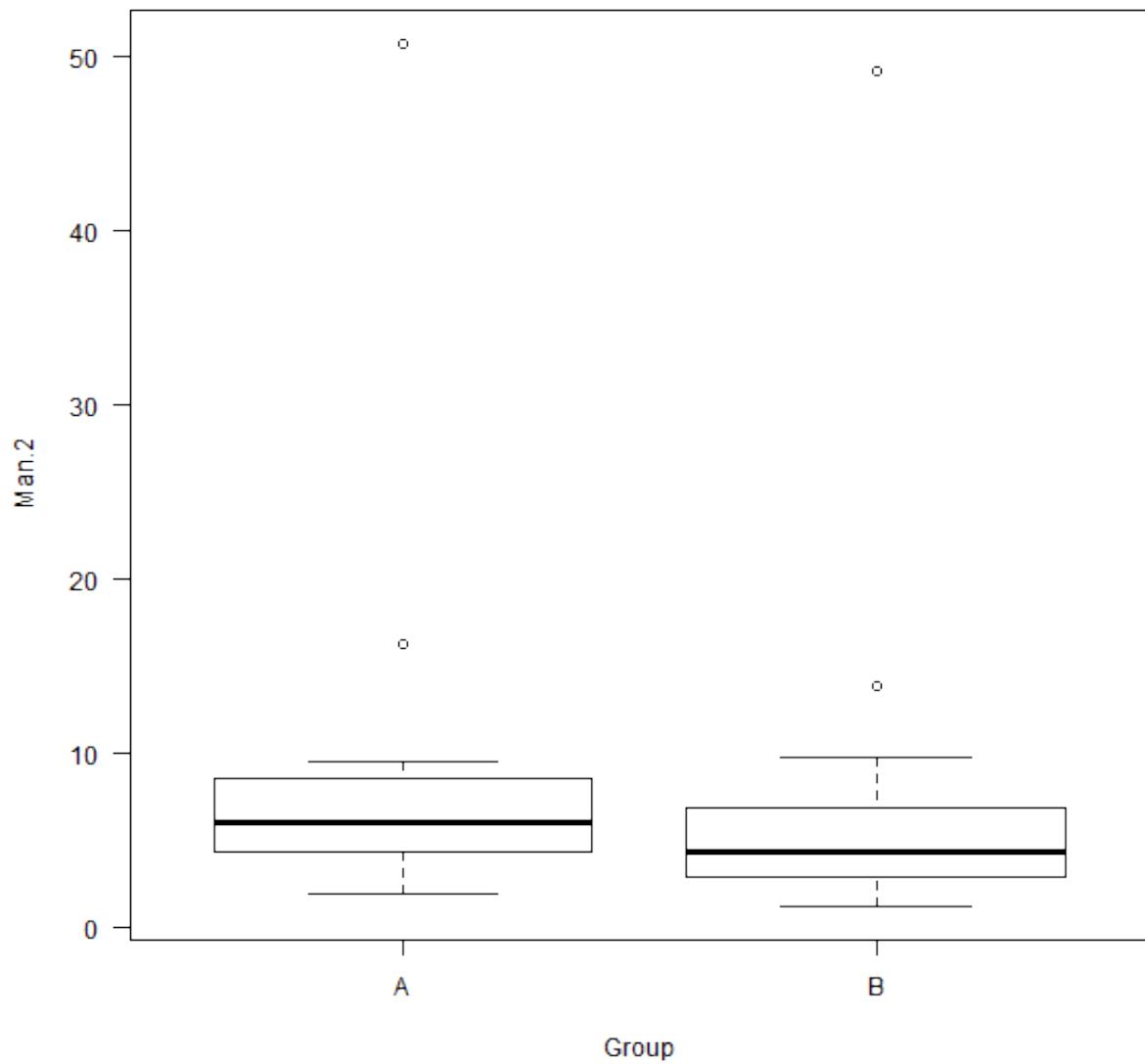
welch Two Sample t-test

```

data: Man.2 by factor(Group)
t = 0.30538, df = 25.999, p-value = 0.7625
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
-8.133243 10.971555
sample estimates:
mean in group A mean in group B
    9.591020      8.171863

```

```
> windows(width=7, height=7); par(lwd=1, las=1, family="sans", cex=1,  
+ 0)  
> boxplot(Man.2~ factor(Group), ylab="Man.2", xlab="Group", data=prin
```



```

> bar.means <- tapply(primary_data$Man.2, factor(primary_data$Group),
+   na.rm=TRUE)
> bar.sds <- tapply(primary_data$Man.2, factor(primary_data$Group), s
> group.names <- c(group.names, "Group=A")
> group.means <- c(group.means, bar.means[1])
> group.sds <- c(group.sds, bar.sds[1])
> group.p <- c(group.p, signif(res$p.value,digits=3))
> group.names <- c(group.names, "Group=B")
> group.means <- c(group.means, bar.means[2])
> group.sds <- c(group.sds, bar.sds[2])
> group.p <- c(group.p, "")
> summary.ttest <- NULL
> summary.ttest <- data.frame(mean=group.means, sd=group.sds, p.value
> rownames(summary.ttest) <- group.names
> colnames(summary.ttest) <- gettextRcmdr(colnames(summary.ttest))
> summary.ttest

```

	mean	sd	p.value
Group=A	9.591020	12.33969	0.763
Group=B	8.171863	12.25061	

```

> #####Two-sample t-test#####
> group.names <- NULL
> group.means <- NULL
> group.sds <- NULL
> group.p <- NULL
> res <- NULL
> (res <- t.test(EAA2~factor(Group), alternative='two.sided', conf.level
+   var.equal=FALSE, data=primary_data))

```

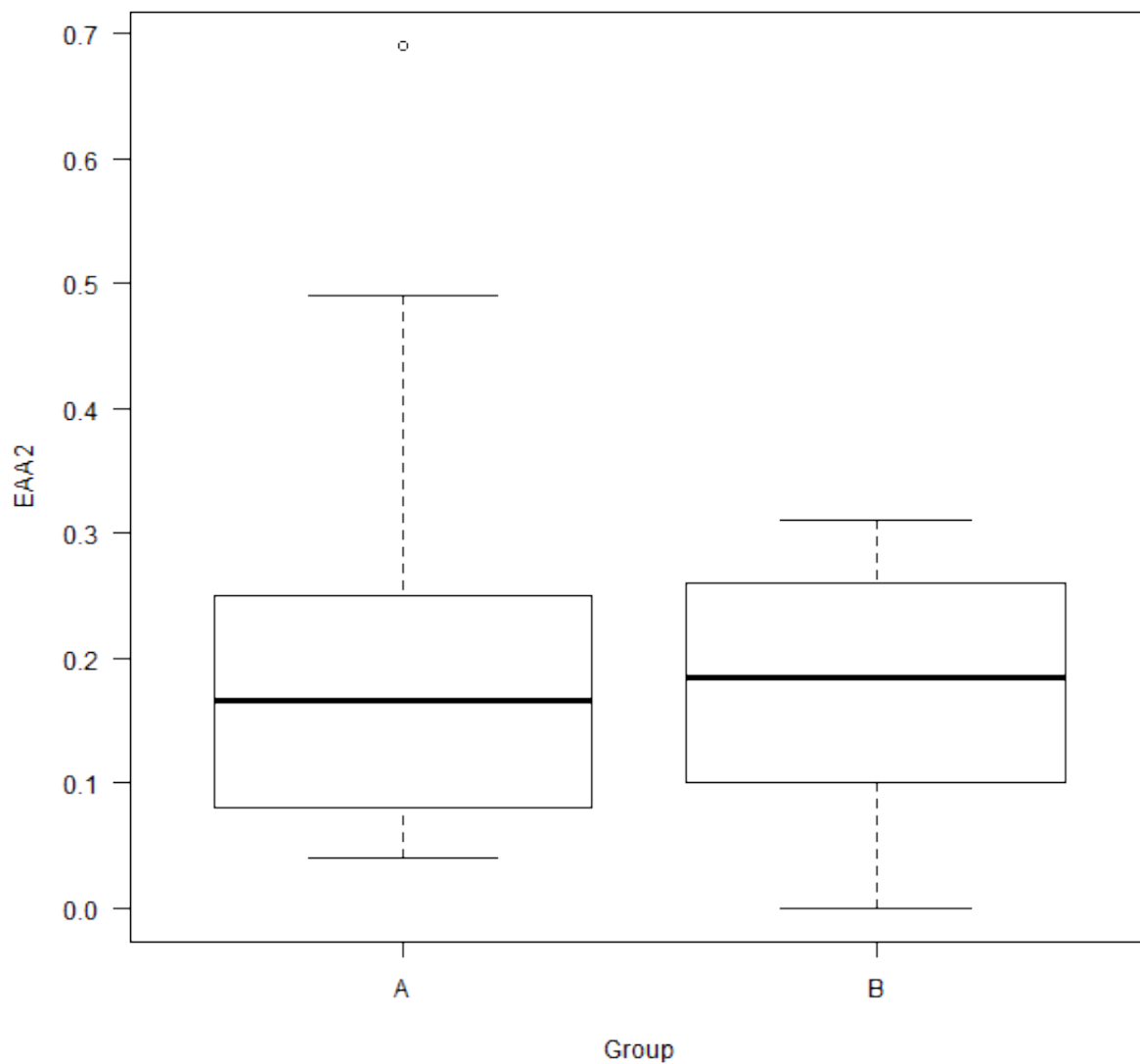
```

welch Two Sample t-test

data:  EAA2 by factor(Group)
t = 0.75975, df = 20.298, p-value = 0.4561
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -0.07470021  0.16041450
sample estimates:
mean in group A mean in group B
      0.2121429      0.1692857

```

```
> windows(width=7, height=7); par(lwd=1, las=1, family="sans", cex=1,  
+ 0)  
> boxplot(EAA2~ factor(Group), ylab="EAA2", xlab="Group", data=primar
```




```

> bar.means <- tapply(primary_data$EAA2, factor(primary_data$Group),
+   na.rm=TRUE)
> bar.sds <- tapply(primary_data$EAA2, factor(primary_data$Group), sc
> group.names <- c(group.names, "Group=A")
> group.means <- c(group.means, bar.means[1])
> group.sds <- c(group.sds, bar.sds[1])
> group.p <- c(group.p, signif(res$p.value,digits=3))
> group.names <- c(group.names, "Group=B")
> group.means <- c(group.means, bar.means[2])
> group.sds <- c(group.sds, bar.sds[2])
> group.p <- c(group.p, "")
> summary.ttest <- NULL
> summary.ttest <- data.frame(mean=group.means, sd=group.sds, p.value
> rownames(summary.ttest) <- group.names
> colnames(summary.ttest) <- gettextRcmdr(colnames(summary.ttest))
> summary.ttest

```

	mean	sd	p.value
Group=A	0.2121429	0.1846068	0.456
Group=B	0.1692857	0.1023166	

```

> #####Two-sample t-test#####
> group.names <- NULL
> group.means <- NULL
> group.sds <- NULL
> group.p <- NULL
> res <- NULL
> (res <- t.test(EAA3~factor(Group), alternative='two.sided', conf.level
+   var.equal=FALSE, data=primary_data))

```

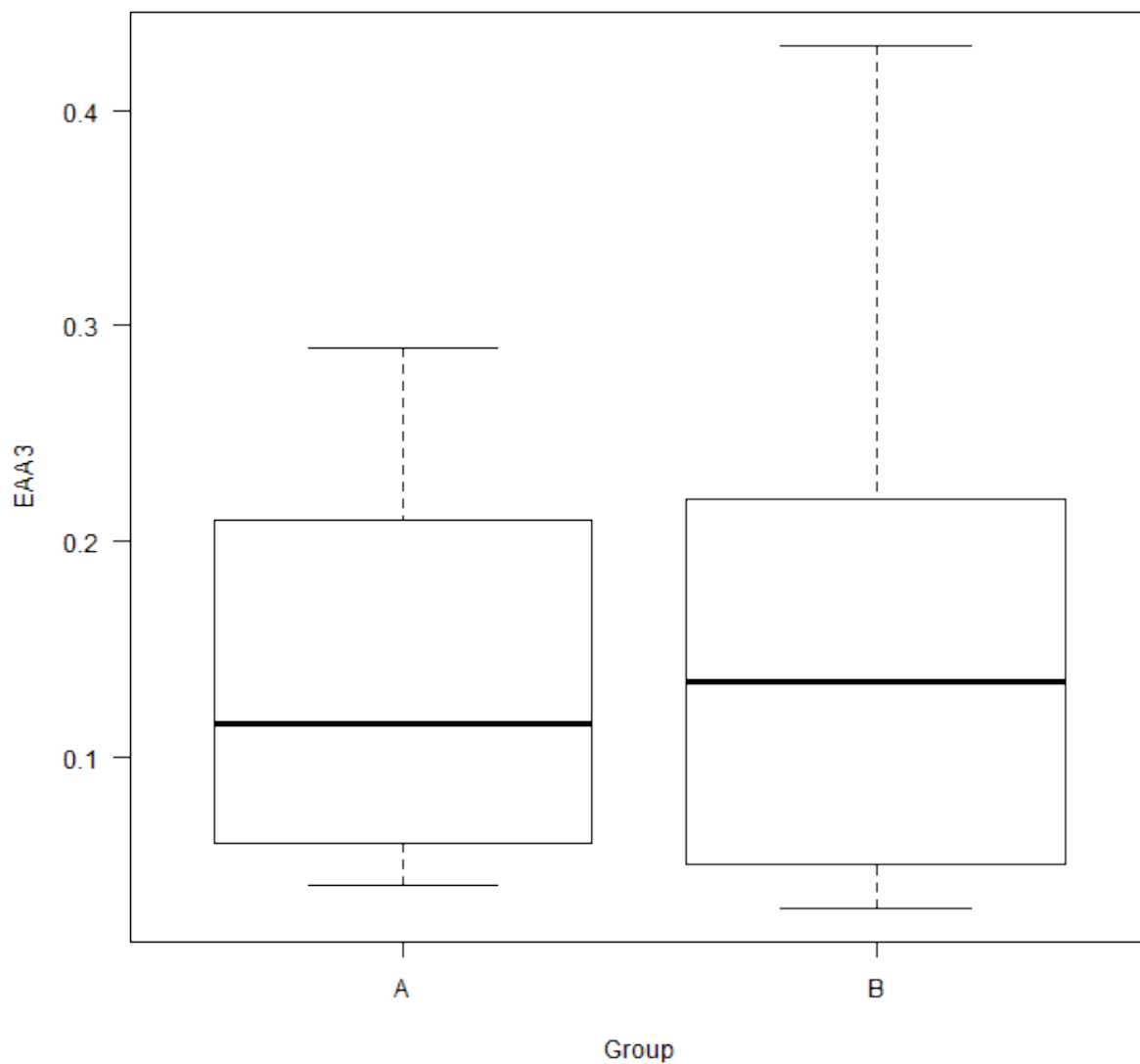
```

welch Two Sample t-test

data:  EAA3 by factor(Group)
t = -0.54606, df = 22.891, p-value = 0.5903
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -0.10947045  0.06375616
sample estimates:
mean in group A mean in group B
 0.1371429      0.1600000

```

```
> windows(width=7, height=7); par(lwd=1, las=1, family="sans", cex=1,  
+ 0)  
> boxplot(EAA3~ factor(Group), ylab="EAA3", xlab="Group", data=primar
```



```

> bar.means <- tapply(primary_data$EAA3, factor(primary_data$Group),
+   na.rm=TRUE)
> bar.sds <- tapply(primary_data$EAA3, factor(primary_data$Group), sc
> group.names <- c(group.names, "Group=A")
> group.means <- c(group.means, bar.means[1])
> group.sds <- c(group.sds, bar.sds[1])
> group.p <- c(group.p, signif(res$p.value,digits=3))
> group.names <- c(group.names, "Group=B")
> group.means <- c(group.means, bar.means[2])
> group.sds <- c(group.sds, bar.sds[2])
> group.p <- c(group.p, "")
> summary.ttest <- NULL
> summary.ttest <- data.frame(mean=group.means, sd=group.sds, p.value
> rownames(summary.ttest) <- group.names
> colnames(summary.ttest) <- gettextRcmdr(colnames(summary.ttest))
> summary.ttest

```

	mean	sd	p.value
Group=A	0.1371429	0.08800599	0.59
Group=B	0.1600000	0.12955545	