

Atkins

MP

2015-05-17

```
> setwd("D:/Dropbox/R/2015-NUS/Session-1/(b) R-Functions/HT Two Sample")
```

```
> Dataset <-  
+ read.table("D:/Dropbox/R/2015-NUS/Session-1/(b) R-Functions/HT Two Sample/Atkins-vs-Conventional-Diet.csv",  
+ header=TRUE, sep=",", na.strings="NA", dec=".", strip.white=TRUE)
```

```
> summary(Dataset)
```

	Diet	Initial.Weight..lbs.	X6.month.Weight	Loss.at.6.Months
Atkins	:33	Min. :131.0	Min. :105.8	Min. :-17.30
Conventional:30		1st Qu.:190.0	1st Qu.:179.8	1st Qu.: 0.30
		Median :231.0	Median :217.7	Median : 11.70
		Mean :228.9	Mean :217.4	Mean : 11.42
		3rd Qu.:261.5	3rd Qu.:259.1	3rd Qu.: 19.75
		Max. :345.0	Max. :352.6	Max. : 47.00

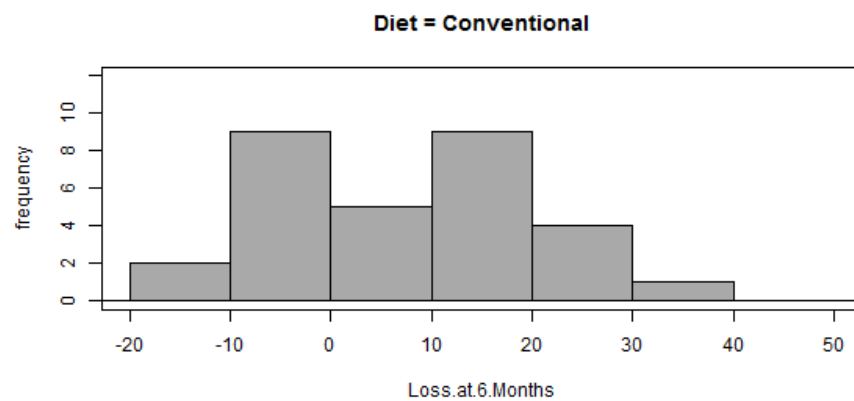
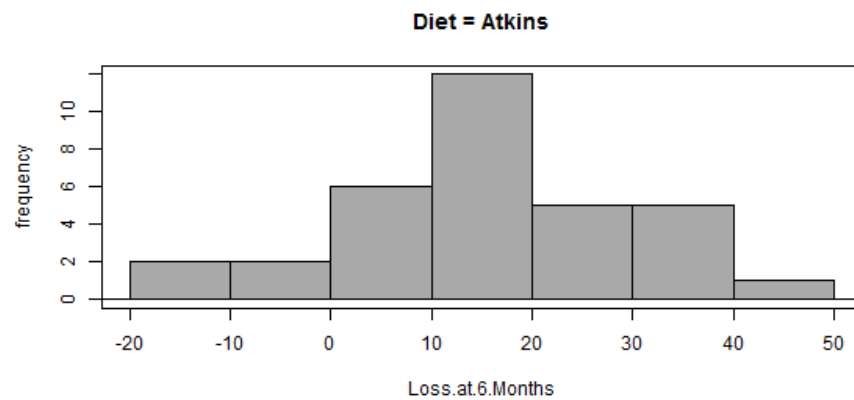
```
> library(abind, pos=15)
```

```
> library(e1071, pos=16)
```

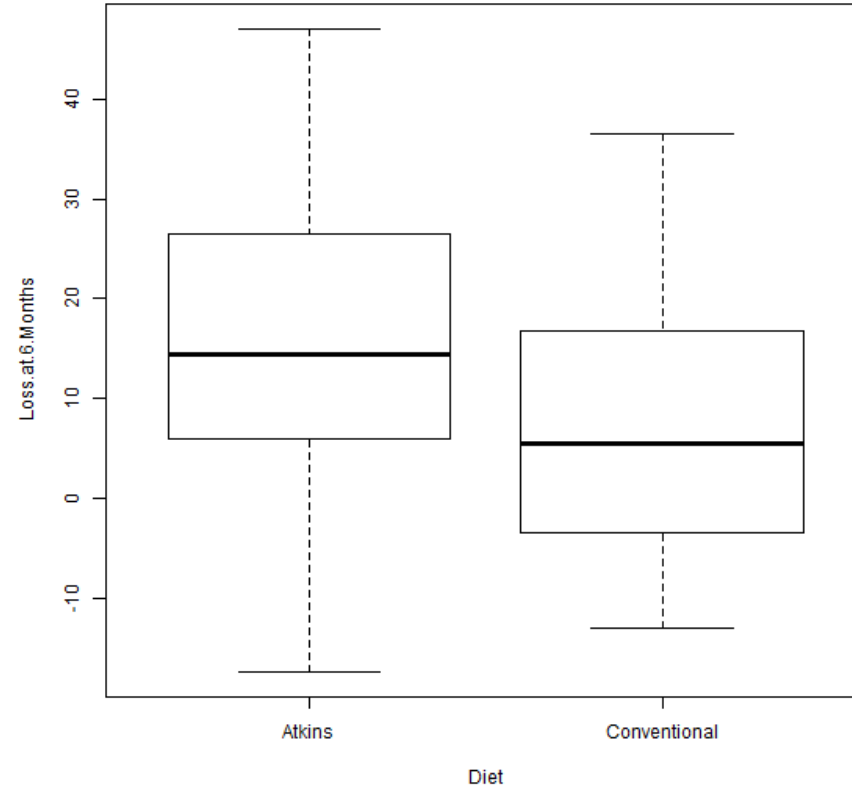
```
> numSummary(Dataset[,"Loss.at.6.Months"], statistics=c("mean", "sd", "IQR",  
+ "quantiles"), quantiles=c(0,.25,.5,.75,1))
```

mean	sd	IQR	0%	25%	50%	75%	100%	n
11.41587	14.00068	19.45	-17.3	0.3	11.7	19.75	47	63

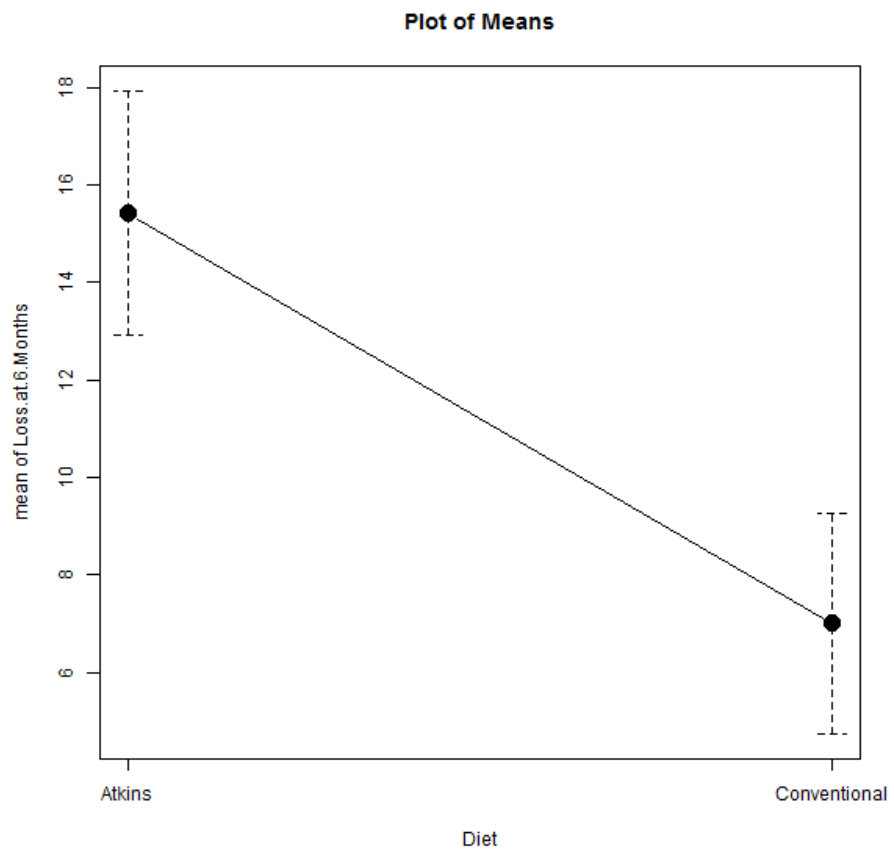
```
> with(Dataset, Hist(Loss.at.6.Months, groups=Diet, scale="frequency",  
+ breaks="Sturges", col="darkgray"))
```



```
> Boxplot(Loss.at.6.Months~Diet, data=Dataset, id.method="y")
```



```
> with(Dataset, plotMeans(Loss.at.6.Months, Diet, error.bars="se"))
```



```
> t.test(Loss.at.6.Months~Diet, alternative='two.sided', conf.level=.95,  
+ var.equal=FALSE, data=Dataset)
```

Welch Two Sample t-test

```
data: Loss.at.6.Months by Diet  
t = 2.4984, df = 60.826, p-value = 0.01519  
alternative hypothesis: true difference in means is not equal to 0  
95 percent confidence interval:  
 1.68010 15.15505  
sample estimates:  
 mean in group Atkins mean in group Conventional  
    15.42422          7.00667
```