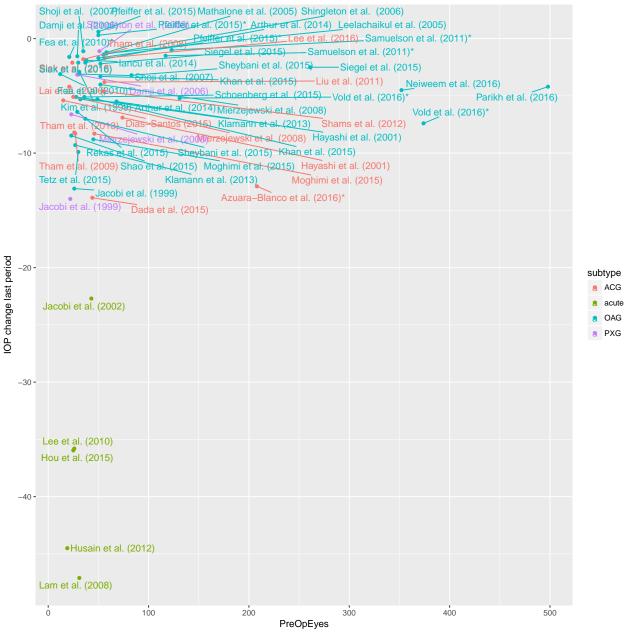
## Sanity checks

## Sanity check data graphically

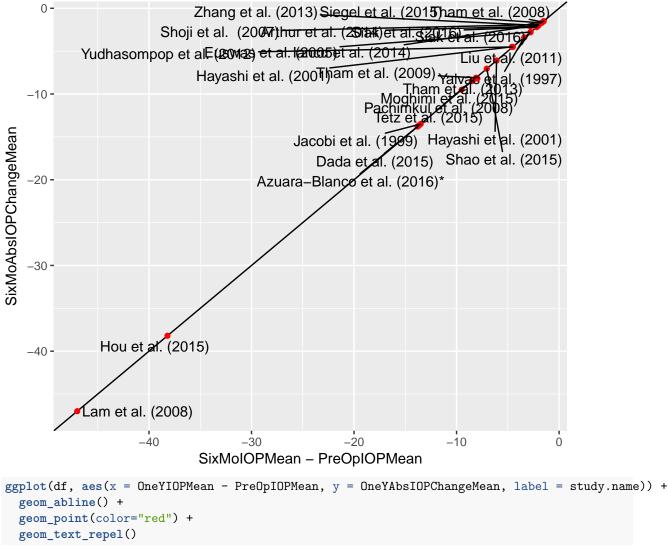
## Summary plot.



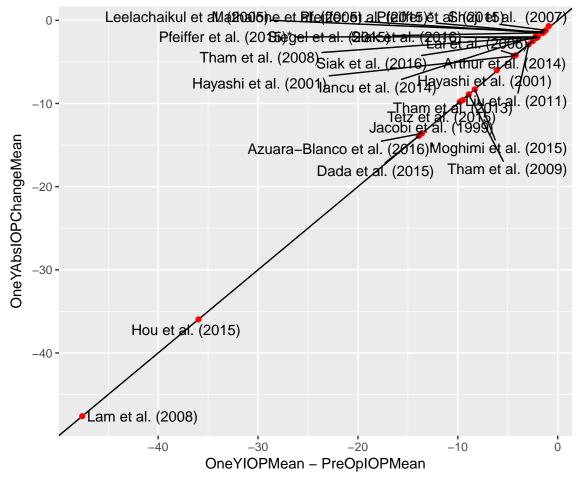
Check that changes add up.

```
ggplot(df, aes(x = SixMoIOPMean - PreOpIOPMean, y = SixMoAbsIOPChangeMean, label = study.name)) +
  geom_abline() +
  geom_point(color="red") +
  geom_text_repel()
```

- ## Warning: Removed 42 rows containing missing values (geom\_point).
- ## Warning: Removed 42 rows containing missing values (geom\_text\_repel).

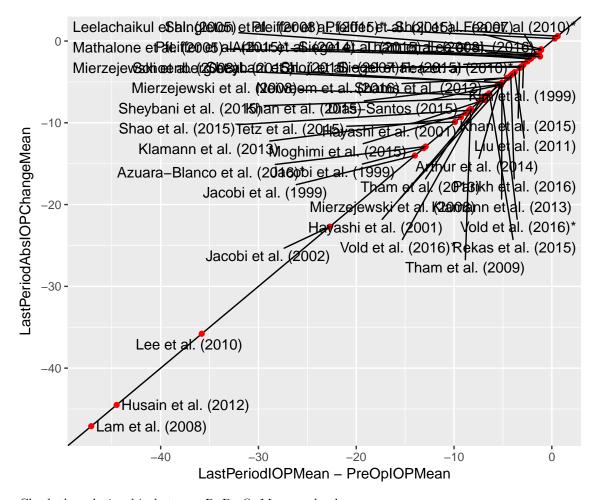


- ## Warning: Removed 42 rows containing missing values (geom\_point).
- ## Warning: Removed 42 rows containing missing values (geom\_text\_repel).



```
ggplot(df, aes(x = LastPeriodIOPMean - PreOpIOPMean, y = LastPeriodAbsIOPChangeMean, label = study.name
  geom_abline() +
  geom_point(color="red") +
  geom_text_repel()
```

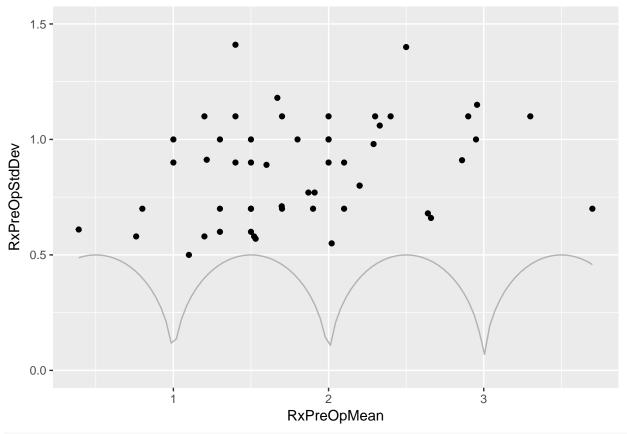
- ## Warning: Removed 18 rows containing missing values (geom\_point).
- ## Warning: Removed 18 rows containing missing values (geom\_text\_repel).



Check the relationship between RxPreOpMean and s.d.

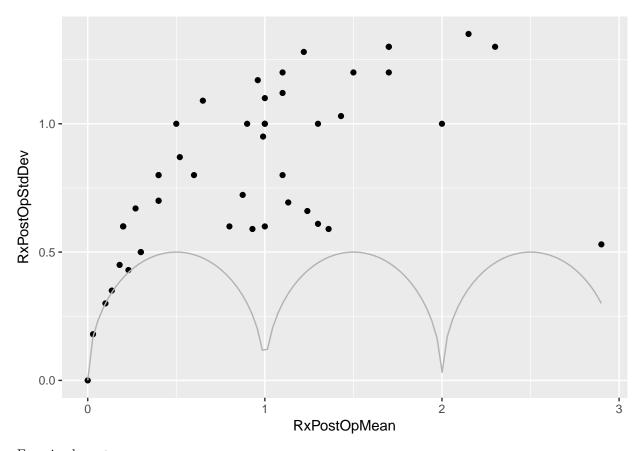
```
ggplot(df, aes(x = RxPreOpMean, y = RxPreOpStdDev)) +
  geom_point() +
  coord_cartesian(y=c(0, 1.5)) +
  stat_function(fun = function(x) sqrt((x - floor(x)) * (1 - (x - floor(x)))), color="gray70")
```

## Warning: Removed 14 rows containing missing values (geom\_point).



```
ggplot(df, aes(x = RxPostOpMean, y = RxPostOpStdDev)) + geom_point() +
    stat_function(fun = function(x) sqrt((x - floor(x)) * (1 - (x - floor(x)))), color="gray70")
```

## Warning: Removed 19 rows containing missing values (geom\_point).



Examine loss at one year.

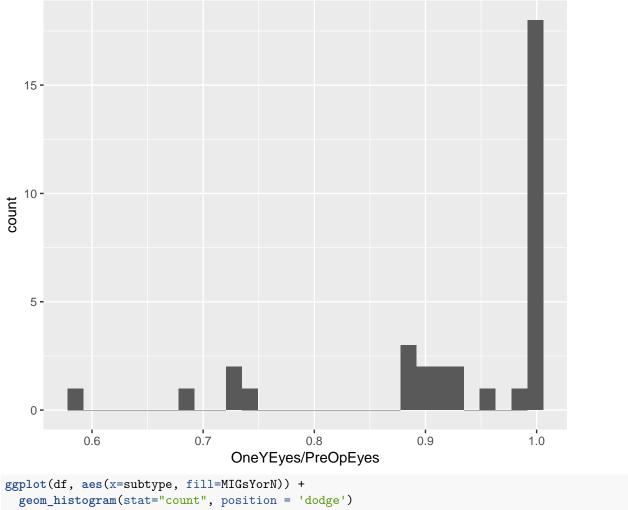
```
ggplot(df, aes(x=PreOpEyes, y=OneYEyes, label=study.name)) +
geom_point(color="red") +
geom_abline() +
geom_text_repel() + coord_fixed()
```

- ## Warning: Removed 33 rows containing missing values (geom\_point).
- ## Warning: Removed 33 rows containing missing values (geom\_text\_repel).

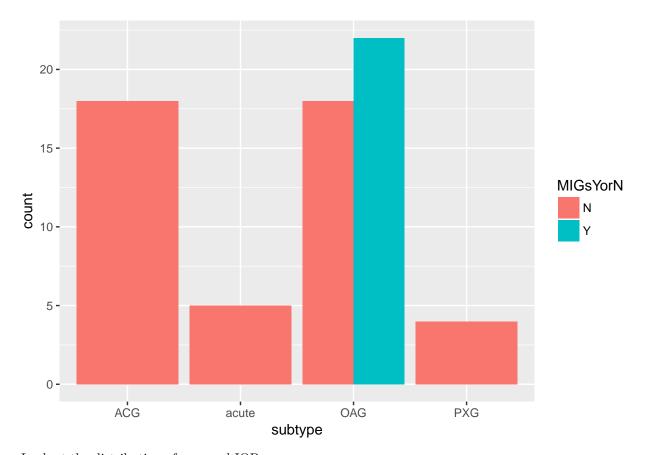
```
Vole et al. (2016)*
   300 -
                                    Siegel et al. (2015)
                               Azuara-Blanco et al. (2016)*
OneYEyes
   200 -
           Samuelson et al. (2011)*
        Hayashi et al. (2001) Samuelson et al. (2011)*
            Pfeiffel
                                             Vold et al. (2016)*
                                eelachaikul et al. (2005)
Hayashi et al. (2001)
        Siegel et a
   <sup>100</sup> - Pfeiffer e
                                      eiffer et al. (2015)
                                        al. (2008) r et al. (2014) am et al. (2008)
        Dada et
                                        acu et al. (2014)Jacobi et al. (2002)
                                      <del>(2012) et al. (2021/3) et al.</del> (2005)
             Lai et al. (11996) al<del>. (120115)</del>; al. (2006)
                       100
                                      200
                                                    300
                                                                    400
                                                                                  500
                                          PreOpEyes
ggplot(df, aes(x=OneYEyes / PreOpEyes, label=study.name)) +
  geom_histogram() +
  coord_cartesian()
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

<sup>##</sup> Warning: Removed 33 rows containing non-finite values (stat\_bin).

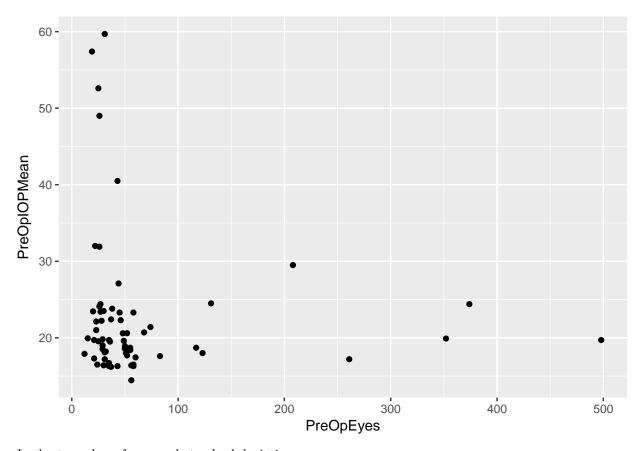


## Warning: Ignoring unknown parameters: binwidth, bins, pad



Look at the distribution of eyes and IOP means.

ggplot(df, aes(x=PreOpEyes, y=PreOpIOPMean)) + geom\_point()



Look at number of eyes and standard deviation.

```
ggplot(df, aes(x=PreOpEyes, y=PreOpIOPStdDev, label=study.name)) +
geom_point(color="red") + geom_text_repel(nudge_x = 5)
```

```
• Husain et al. (2012)
   15 -
                 •Lee et al. (2010)
                           • Pachimkul et al. (2008)
PreOpiOPStdDev
                                   Sheybani et al. (2015)
              Lam et al. (2008)
       Dias-Santos (2015) Hou et al. (2015)
                                                                        •Azuara-Blanco et al. (2016)*
                  Shao et al. (2015) Jacobi et al. (1999)
       Jacobi et al. (1999) Jacobi et al. (2002) Shams et al. (2012)
Rekas et al. (2015) Moghimi et al. (2015) Khan et al. (2015)
       Lai et al. (2006) *Klamann et al. (2013) Tham et al. (2009) Moghimi et al. (2015)
                                                           Schoenberg et al. (2015)
                                                                                                                     Neiweem et al. (2016)
                                              Khan et al. (2015) Hayashi et al. (2001)
       Shao et al. (2015)
       Tetz et al. (2015) Mierzejewski et al. (2008) Mierzejewski et al. (2008)
                                                                                                                                            Parikh et al. (2016)
                   Arthur et al. (2014) Arthur et al. (2014) Lee et al. (2016)
       Yalvac et al. (1997) Siegel et al. (2015)
                                                             Mathalone et al. (2005) • Siegel et al. (2015)
                                            Zhang et al. (2013)
       Tham et al. (2013)
                                                                      _Shingleton et al. (2008)
                                    ani et al. (2015) Pfeiffer et al. (2015)*
                                                                                    -Hayashi et al. (2001)
                                 erzejewski et al. (2008)
                                                                   Liu et al. (2011)
                                                  /udhasompop et al. (2012) - Samuelson et al. (2011)*
                                                                   -Vold et al. (2016)*
                                  Damij et al. (2006) Leelacheikul et al. (2005)
                                                                                                                          •Vold et al. (2016)*
              Fea et. al (2010)*
                                        Pfeiffer et al. (2015)* Samuelson et al. (2011)*
       Fea et. al (2010)
                             Tham et al. (2008)
                                                     Shingleton et al. (2006)
       Shoji et al. (2007)
                                 Damji et al. (2006) Euswas et al. (2005)
                            lancu et al. (2014)
       Shoji et al. (2007)
                                    Dada et al. (2015)
                                                                                 PreOpEyes
```

```
ggplot(df, aes(x=PreOpEyes, y=SixMoAbsIOPChangeStdDev, label=study.name)) +
geom_point(color="red") + geom_text_repel(nudge_x = 5)
```

- ## Warning: Removed 40 rows containing missing values (geom\_point).
- ## Warning: Removed 40 rows containing missing values (geom\_text\_repel).

```
12.5 -
                Pachimkul et al. (2008)
             Lam et al. (2008)
           Hou et al. (2015)
                                 Azuara-Blanco et al. (2016)*
          Jacobi et al. (1999)
   10.0 -
SixMoAbsIOPChangeStdDev
             Shao et al. (2015)
           Moghimi et al. (2015)
              Tetz et al. (2015)
             Arthur et al. (2014)
                          Siegel et al. (2015)
                               Damji et al. (2006)
    5.0 -
                               et al. (240at/a)shi et al. (2001)
                  Tham et al. (20 123) and et al. (2013)
               Tancu et alyatatatet al. Elusavas et al. (2005)
             Tham et al. (2001)
           Damji et al. (2006)64) sompop et al. (2012)
              Shoji et al. (2007)
                   Dada et al. (2015)
                    100
         Ö
                                200
                                            300
                                                        400
                                                                     500
                                   PreOpEyes
ggplot(df, aes(x=PreOpEyes, y=SixMoIOPStdDev, label=study.name)) +
  geom_point(color="red") + geom_text_repel(nudge_x = 5)
```

- ## Warning: Removed 43 rows containing missing values (geom\_point).
- ## Warning: Removed 43 rows containing missing values (geom\_text\_repel).

```
Pachimkul et al. (2008)
   6 -
         •Shao et al. (2015)
   5 -
SixMolOPStdDev
       Hayashi et al. (2001)
                                 Azuara-Blanco et al. (2016)*
      Tetz et al. (2015)
         Tham et al. (200%)pghimi et al. (2015)
             fak et al. (2016) Siegel et al. (2015)
                         Arthur et al. (2014)
2008) Zhang et al. (2013)
                       (2008)
                         Hou et al. (2015) alvac et al. (1997)
      Liu et al. (2001) Liu et al. (2008) Hayashi et al. (2001)
                        Shoji et al. Y(201025)ompop et al. (2012)
           lancu et al. (2014)
      Siak et al. (2016)
             -Jacobi et al. (1999)
                              Euswas et al. (2005)
            Dada et al. (2015)
                                              300
      Ö
                   100
                                200
                                                           400
                                                                         500
                                   PreOpEyes
ggplot(df, aes(x=PreOpEyes, y=OneYAbsIOPChangeStdDev, label=study.name)) +
  geom_point(color="red") + geom_text_repel(nudge_x = 5)
```

```
## Warning: Removed 36 rows containing missing values (geom_point).
```

<sup>##</sup> Warning: Removed 36 rows containing missing values (geom\_text\_repel).

```
•Lam et al. (2008)
                                 Azuara-Blanco et al. (2016)*
          Hou et al. (2015)

    Jacobi et al. (1999)

       Moghimi et al. (2015)
OneYAbsIOPChangeStdDev
                ai et al. (2006)
                      (2015)Tham et al. (2009)
         Arthur et al. (2014) ham et al. (2013)
                              Mathalone et al. (2005)
                             et al. (2161a) shi et al. (2001)
                           <del>2011)</del> Pfeiffer et al. (2015)*
                                                         Vold et al. (2016)*
                           (20Pfe)ffer et al. (2015)*
                           ashi et al. (2000 d) et al. (2016)*
       Damii et al. (2006) Leelachaikul et al. (2005)
                           Samuelson et al. (2011)*
              et al. (2008)
       Tham'
      Damji et al. (2006) amuelson et al. (2011)*
        Shoji et al. (2007)

    Dada et al. (2015)

       Ö
                   100
                                200
                                             300
                                                           400
                                                                        500
                                   PreOpEyes
ggplot(df, aes(x=PreOpEyes, y=OneYIOPStdDev, label=study.name)) +
  geom_point(color="red") + geom_text_repel(nudge_x = 5)
## Warning: Removed 43 rows containing missing values (geom_point).
## Warning: Removed 43 rows containing missing values (geom_text_repel).
```

```
Hayashi et al. (2001)

    Tetz et al. (2015)

         Lai et al. (2006)
      Pfeiffer et al. (2015) Moghimi et al. (2015)
                         Pfeiffer et al. (2015)*
         Siak et al. (2016) Hayashi et al. (2001)
              Siegel et al. (2015)
      Arthur et all (2016)* al. (2009)Azuara-Blanco et al. (2016)*
OneYIOPStdDev
   3 - Hou et al. (2015) Tham et al. (2008)
                    al. (2011)Pfeiffer et al. (2015)*
                              Shoji et al. (2007)
         Lam et al. (2008)
Mathalone et al. (2005)
                        Leelachaikul et al. (2005)
              al. (2016)
       lancu et al. (2014)
   2 -

    Jacobi et al. (1999)

    Dada et al. (2015)

                  100
                                200
                                             300
                                                          400
                                                                       500
                                  PreOpEyes
ggplot(df, aes(x=PreOpEyes, y=LastPeriodAbsIOPChangeStdDev, label=study.name)) +
  geom_point(color="red") + geom_text_repel(nudge_x = 5)
## Warning: Removed 13 rows containing missing values (geom_point).
## Warning: Removed 13 rows containing missing values (geom_text_repel).
```

```
16 -

    Husain et al. (2012)

LastPeriodAbsIOPChangeStdDev
    12 -
        Lee et al. (2010)
                           Sheybani et al. (2015)
                               Santos (2015)
                               oghimi et al. (240x1.6a)ra-Blanco et al. (2016)*
                                          mann et al. (2013)
                                                  Schoenberg et al. (2015)
                                            <del>r´et Malat/220/008)</del>e et al. (2005)
                                                 ի, գէթել (2000nh) et al. (2016)
                                        utt(1201115) padej(2003 kg) etikh. 420 08/2016)
                        Sieu (2015)
         Liu pranii (2041 $2000) et al. Leejoo) aikul exced (2005) 2016)*
                          <del>te)ffer,et,at.1(20⊄2€)ie</del>wski et al.√2000€) al. (2016)*
                al (2013) at hiet ating legoty liet zelie (2013) abri (2008) (2011)*
        Fea et Salo(2011 a).* (2807) i et al.Ja(2007) tSalm(20052) n et al. (2011)*
        0
                                                            400
                    100
                                  200
                                               300
                                                                         500
                                    PreOpEyes
ggplot(df, aes(x=PreOpEyes, y=SixMoIOPStdDev, label=study.name)) +
  geom_point(color="red") + geom_text_repel(nudge_x = 5)
## Warning: Removed 43 rows containing missing values (geom_point).
## Warning: Removed 43 rows containing missing values (geom_text_repel).
```

