Descriptive Stats

Filters

```
discarded_patients <- readLines('five_years/discarded_patients')

clinical_data %<>%
  .[, followup_2y :=
      !is.na(`2 YEAR VISIT - Date of visit`) |
      !is.na(`3 YEAR VISIT - Date of visit`)] %>%
  .[, followup_5y :=
      !is.na(`5 YEAR VISIT - Date of visit`) |
      !is.na(`6 YEAR VISIT - Date of visit`)]

clinical_data %<>%
  .[Site != 'ANK Op'] %>%
  .[`Vital status` == 'Alive'] %>%
  .[!(`Code of the patient` %in% discarded_patients)] %>%
  .[`st1. Date of Stage 1` %>% as.Date() < as.Date('2015-3-15')]

total <- clinical_data[, `Code of the patient` %>% uniqueN]
patients_2y <- clinical_data[followup_2y==TRUE, `Code of the patient` %>% uniqueN]
patients_5y <- clinical_data[followup_5y==TRUE, `Code of the patient` %>% uniqueN]
```

- Number of Patients with 'st1. Date of Stage 1' < '2015-3-15': 361
- Number of patients with visit in 2 years: 316
- Number of patients with visit in 5 years: 258

```
clinical_data %<>% .[followup_2y==TRUE]
```

Total patients for the stats 316

Demographics

```
Age
[1] "mean"
[1] 51.96835
[1] "sd"
[1] 19.11516
[1] "median"
[1] 57
[1] "IQR"
[1] 32.25

[1] "stats"
```

```
        diagnosis     mean         sd median    IQR    N
1: Degenerative 67.67593  8.158281     68   9.25 108
2:    Idiopathic 42.38621 17.881627     43 34.00 145
3:        others 47.09524 18.172750     48 33.50  63
[1] "p_val_idio_vs_dege"
[1] 2.204258e-35


Gender
[1] "table"
variable
Female    Male
   245      71
[1] "proportion"
variable
    Female       Male
0.7753165 0.2246835

[1] "table_idiopathic"

Female    Male
   119      26
[1] "proportion_idiopathic"

    Female       Male
0.8206897 0.1793103
[1] "table_degenerative"

Female    Male
    85      23
[1] "proportion_degenerative"

   Female       Male
0.787037 0.212963
[1] "p_val_Female"
[1] 0.6106405
[1] "p_val_Male"
[1] 0.6106405


Prior Spine Surgery
[1] "table"
variable
 No Yes
213 103
[1] "proportion"
variable
        No       Yes
0.6740506 0.3259494

[1] "table_idiopathic"

 No Yes
111  34
```

```
[1] "proportion_idiopathic"

        No       Yes
0.7655172 0.2344828
[1] "table_degenerative"

 No Yes
 72  36
[1] "proportion_degenerative"

        No       Yes
0.6666667 0.3333333
[1] "p_val_Yes"
[1] 0.1104036
[1] "p_val_No"
[1] 0.1104036


Height (cm)_First Visit
[1] "mean"
[1] 163.0665
[1] "sd"
[1] 9.411847
[1] "median"
[1] 163
[1] "IQR"
[1] 12.25

[1] "stats"
      diagnosis     mean          sd median IQR   N
1: Degenerative 162.7407  9.157368     163  12 108
2:    Idiopathic 163.9379  8.464977     164  11 145
3:        others 161.6190 11.611213     160  19  63
[1] "p_val_idio_vs_dege"
[1] 0.2893676


Weight (kgs)_First Visit
[1] "mean"
[1] 65.69146
[1] "sd"
[1] 12.77674
[1] "median"
[1] 65
[1] "IQR"
[1] 18

[1] "stats"
      diagnosis     mean          sd median   IQR   N
1: Degenerative 69.44444 12.79408      68 19.25 108
2:    Idiopathic 62.75517 11.30590      62 17.00 145
3:        others 66.01587 14.32513      65 21.50  63
[1] "p_val_idio_vs_dege"
[1] 2.384157e-05
```

```
BMI_First Visit
[1] "mean"
[1] 24.74019
[1] "sd"
[1] 4.618282
[1] "median"
[1] 24.045
[1] "IQR"
[1] 5.5175


[1] "stats"
      diagnosis     mean       sd median  IQR   N
1: Degenerative 26.27528 4.796262 25.605 6.14 108
2:   Idiopathic 23.35814 3.848048 22.670 5.53 145
3:       others 25.28952 5.039034 24.260 6.83  63
[1] "p_val_idio_vs_dege"
[1] 4.988788e-07


ASA classification
[1] "table"
variable
  1   2   3
100 169  47
[1] "proportion"
variable
        1         2         3
0.3164557 0.5348101 0.1487342

[1] "table_idiopathic"

 1  2  3
72 68  5
[1] "proportion_idiopathic"

         1          2          3
0.49655172 0.46896552 0.03448276
[1] "table_degenerative"

 1  2  3
10 66 32
[1] "proportion_degenerative"

         1          2          3
0.09259259 0.61111111 0.29629630
[1] "p_val_2"
[1] 0.03457792
[1] "p_val_3"
[1] 1.60917e-08
[1] "p_val_1"
[1] 2.842459e-11
```

```
Tobacco use_First Visit
[1] "table"
variable
        Current User: 1 pack per day        Current User: 2 packs per day
                               17                                        1
Current User: 3 packs or more per day    Current User: Less than 1pk per day
                                2                                       48
             Ex-User: 0-6 months            Ex-User: 1 year or greater
                                9                                        2
         Ex-User: 2 yrs or greater                Ex-User: 6-12 months
                               41                                        4
                         Non-User
                              192
[1] "proportion"
variable
        Current User: 1 pack per day        Current User: 2 packs per day
                      0.053797468                          0.003164557
Current User: 3 packs or more per day    Current User: Less than 1pk per day
                      0.006329114                          0.151898734
             Ex-User: 0-6 months            Ex-User: 1 year or greater
                      0.028481013                          0.006329114
         Ex-User: 2 yrs or greater                Ex-User: 6-12 months
                      0.129746835                          0.012658228
                         Non-User
                      0.607594937

[1] "table_idiopathic"

        Current User: 1 pack per day Current User: 3 packs or more per day
                                6                                        1
  Current User: Less than 1pk per day              Ex-User: 0-6 months
                               23                                        6
             Ex-User: 1 year or greater        Ex-User: 2 yrs or greater
                                1                                       21
                 Ex-User: 6-12 months                         Non-User
                                1                                       86
[1] "proportion_idiopathic"

        Current User: 1 pack per day Current User: 3 packs or more per day
                      0.041379310                          0.006896552
  Current User: Less than 1pk per day              Ex-User: 0-6 months
                      0.158620690                          0.041379310
             Ex-User: 1 year or greater        Ex-User: 2 yrs or greater
                      0.006896552                          0.144827586
                 Ex-User: 6-12 months                         Non-User
                      0.006896552                          0.593103448
[1] "table_degenerative"

        Current User: 1 pack per day Current User: 3 packs or more per day
                                6                                        1
  Current User: Less than 1pk per day              Ex-User: 0-6 months
                               15                                        2
         Ex-User: 2 yrs or greater                Ex-User: 6-12 months
```

```
                                       10                                             1
                                  Non-User
                                       73
[1] "proportion_degenerative"

           Current User: 1 pack per day Current User: 3 packs or more per day
                          0.055555556                             0.009259259
  Current User: Less than 1pk per day                     Ex-User: 0-6 months
                          0.138888889                             0.018518519
          Ex-User: 2 yrs or greater                      Ex-User: 6-12 months
                          0.092592593                             0.009259259
                             Non-User
                          0.675925926
[1] "p_val_Current User: Less than 1pk per day"
[1] 0.7974604
[1] "p_val_Non-User"
[1] 0.2236226
[1] "p_val_Ex-User: 2 yrs or greater"
[1] 0.289374
[1] "p_val_Current User: 1 pack per day"
[1] 0.8214198
[1] "p_val_Ex-User: 1 year or greater"
[1] 1
[1] "p_val_Ex-User: 0-6 months"
[1] 0.5062799
[1] "p_val_Ex-User: 6-12 months"
[1] 1
[1] "p_val_Current User: 2 packs per day"
[1] NaN
[1] "p_val_Current User: 3 packs or more per day"
[1] 1


ESSG Diagnosis
[1] "table"
variable
                     Congenital                     Degenerative
                              9                              108
                    Failed-back                       Idiopathic
                             18                              145
                  Neuromuscular Other: Ankylosing Spondylitis
                              4                                1
          Other: hyperkyphosis   Other: radiotherapy induced
                              1                                1
     Other: Spondylolisthesis                    Post-traumatic
                              1                               12
                    Scheuermann                        Syndromic
                             12                                4
[1] "proportion"
variable
                     Congenital                     Degenerative
                     0.028481013                      0.341772152
                    Failed-back                       Idiopathic
                     0.056962025                      0.458860759
```

```
          Neuromuscular Other: Ankylosing Spondylitis
            0.012658228                      0.003164557
      Other: hyperkyphosis   Other: radiotherapy induced
            0.003164557                      0.003164557
    Other: Spondylolisthesis                 Post-traumatic
            0.003164557                      0.037974684
               Scheuermann                        Syndromic
            0.037974684                      0.012658228
```

[1] "table_idiopathic"

```
Idiopathic
       145
```
[1] "proportion_idiopathic"

```
Idiopathic
         1
```
[1] "table_degenerative"

```
Degenerative
       108
```
[1] "proportion_degenerative"

```
Degenerative
           1
```
[1] "p_val_Degenerative"
[1] 4.445391e-56
[1] "p_val_Idiopathic"
[1] 4.445391e-56
[1] "p_val_Failed-back"
[1] NaN
[1] "p_val_Congenital"
[1] NaN
[1] "p_val_Scheuermann"
[1] NaN
[1] "p_val_Other: radiotherapy induced"
[1] NaN
[1] "p_val_Neuromuscular"
[1] NaN
[1] "p_val_Syndromic"
[1] NaN
[1] "p_val_Post-traumatic"
[1] NaN
[1] "p_val_Other: Spondylolisthesis"
[1] NaN
[1] "p_val_Other: hyperkyphosis"
[1] NaN
[1] "p_val_Other: Ankylosing Spondylitis"
[1] NaN

Radiology

Major curve Cobb angle
```

```
[1] "mean"
[1] 41.12619
[1] "sd"
[1] 23.16212
[1] "median"
[1] 39
[1] "IQR"
[1] 34


[1] "stats"
      diagnosis     mean       sd median   IQR   N
1: Degenerative 29.88241 16.16942  27.50 18.11 108
2:    Idiopathic 54.18193 19.41055  55.00 25.00 145
3:        others 30.17855 25.74336  24.02 40.00  63
[1] "p_val_idio_vs_dege"
[1] 1.103665e-22


6W. Major curve Cobb angle
[1] "mean"
[1] 23.13217
[1] "sd"
[1] 16.61597
[1] "median"
[1] 20
[1] "IQR"
[1] 19


[1] "stats"
      diagnosis     mean        sd median   IQR   N
1: Degenerative 15.70838  9.661733 15.590 11.57 108
2:    Idiopathic 30.16239 16.754013 27.555 18.50 145
3:        others 19.07672 18.888549 14.000 24.25  63
[1] "p_val_idio_vs_dege"
[1] 5.785777e-15


2Y. Major curve Cobb angle
[1] "mean"
[1] 23.53952
[1] "sd"
[1] 17.55128
[1] "median"
[1] 20.37
[1] "IQR"
[1] 21


[1] "stats"
      diagnosis     mean        sd median     IQR   N
1: Degenerative 14.52104  8.037443  13.48 11.3700 108
2:    Idiopathic 31.32905 17.419387  28.00 18.8725 145
3:        others 19.80446 20.229905  15.00 24.0000  63
[1] "p_val_idio_vs_dege"
[1] 2.979279e-16
```

```
5Y. Major curve Cobb angle
[1] "mean"
[1] 32.21214
[1] "sd"
[1] 23.92076
[1] "median"
[1] 26.59
[1] "IQR"
[1] 22.85


[1] "stats"
      diagnosis     mean        sd median     IQR   N
1: Degenerative 18.24867  9.154296 16.415 10.8925 108
2:   Idiopathic 39.76629 26.909972 33.365 25.7175 145
3:       others 27.98577 18.783686 24.765 25.5175  63
[1] "p_val_idio_vs_dege"
[1] 4.758213e-08



Major curve Cobb angle tests
6w vs 2y p-value
0.782403
2y vs 5y p-value
0.0003923058

Coronal Balance (C7PL to CSVL)
[1] "mean"
[1] 22.47753
[1] "sd"
[1] 19.86181
[1] "median"
[1] 17.075
[1] "IQR"
[1] 20.6675


[1] "stats"
      diagnosis     mean       sd median    IQR   N
1: Degenerative 25.38624 24.22615 19.550 27.070 108
2:   Idiopathic 20.00277 15.52244 15.505 15.925 145
3:       others 22.96772 19.72216 17.500 21.680  63
[1] "p_val_idio_vs_dege"
[1] 0.05356687



6W. Coronal Balance (C7PL to CSVL)
[1] "mean"
[1] 19.75734
[1] "sd"
[1] 14.57299
[1] "median"
[1] 16.38
[1] "IQR"
```

```
[1] 18.905

[1] "stats"
      diagnosis    mean       sd median    IQR   N
1: Degenerative 20.40167 15.98830 19.225 20.6275 108
2:   Idiopathic 19.95472 13.89001 16.390 18.5700 145
3:       others 18.18140 13.91485 14.080 15.3325  63
[1] "p_val_idio_vs_dege"
[1] 0.8349514


2Y. Coronal Balance (C7PL to CSVL)
[1] "mean"
[1] 18.61454
[1] "sd"
[1] 15.95797
[1] "median"
[1] 14.02
[1] "IQR"
[1] 19.07

[1] "stats"
      diagnosis    mean       sd median    IQR   N
1: Degenerative 17.61514 15.82971  13.82 15.7675 108
2:   Idiopathic 18.47234 15.15299  14.62 20.6500 145
3:       others 20.47229 17.97678  14.16 20.1275  63
[1] "p_val_idio_vs_dege"
[1] 0.7160273


5Y. Coronal Balance (C7PL to CSVL)
[1] "mean"
[1] 20.39557
[1] "sd"
[1] 17.36668
[1] "median"
[1] 14.865
[1] "IQR"
[1] 20.2775

[1] "stats"
      diagnosis    mean       sd median    IQR   N
1: Degenerative 21.63793 21.34302 18.910 22.72 108
2:   Idiopathic 19.70706 16.57154 14.065 17.96 145
3:       others 20.82720 14.80168 15.950 16.99  63
[1] "p_val_idio_vs_dege"
[1] 0.6660794


Coronal Balance (C7PL to CSVL) tests
6w vs 2y p-value
0.4113995
2y vs 5y p-value
0.3478185
```

```
Sagittal Balance
[1] "mean"
[1] 39.58853
[1] "sd"
[1] 63.57475
[1] "median"
[1] 26.6
[1] "IQR"
[1] 82.715

[1] "stats"
      diagnosis     mean       sd median    IQR   N
1: Degenerative 71.61333 63.67752  60.80 79.405 108
2:   Idiopathic 13.53424 52.25348   8.11 60.760 145
3:       others 45.60576 61.73407  34.05 77.420  63
[1] "p_val_idio_vs_dege"
[1] 1.883619e-12


6W. Sagittal Balance
[1] "mean"
[1] 20.28433
[1] "sd"
[1] 39.70533
[1] "median"
[1] 18.23
[1] "IQR"
[1] 49.6

[1] "stats"
      diagnosis     mean       sd median    IQR   N
1: Degenerative 35.61884 38.36800  32.24 46.4775 108
2:   Idiopathic 10.16734 37.25783  13.50 48.6200 145
3:       others 19.02431 40.25601  14.78 49.4100  63
[1] "p_val_idio_vs_dege"
[1] 3.583969e-06


2Y. Sagittal Balance
[1] "mean"
[1] 22.97082
[1] "sd"
[1] 49.32633
[1] "median"
[1] 18.03
[1] "IQR"
[1] 62.595

[1] "stats"
      diagnosis     mean       sd median    IQR   N
1: Degenerative 46.21306 47.81712  42.26 57.6225 108
2:   Idiopathic 10.33775 41.85169   7.00 56.4900 145
3:       others 17.43673 55.70028   9.98 49.3500  63
```

```
[1] "p_val_idio_vs_dege"
[1] 6.976526e-07



5Y. Sagittal Balance
[1] "mean"
[1] 32.77252
[1] "sd"
[1] 51.26513
[1] "median"
[1] 26.34
[1] "IQR"
[1] 56.75


[1] "stats"
      diagnosis     mean       sd median   IQR   N
1: Degenerative 60.07966 59.39006  55.61 41.59 108
2:   Idiopathic 24.51594 46.39946  20.20 60.57 145
3:       others 23.88440 44.33184  23.46 63.90  63
[1] "p_val_idio_vs_dege"
[1] 0.006227384



Sagittal Balance tests
6w vs 2y p-value
0.5090756
2y vs 5y p-value
0.08372516

Sagittal T2-T5
[1] "mean"
[1] 11.08386
[1] "sd"
[1] 9.783287
[1] "median"
[1] 10
[1] "IQR"
[1] 11.34


[1] "stats"
      diagnosis     mean        sd median     IQR   N
1: Degenerative 11.51980  8.646880  11.00 11.0000 108
2:   Idiopathic 11.04424 10.619731   8.88 11.0850 145
3:       others 10.43717  9.788225  10.00 11.5425  63
[1] "p_val_idio_vs_dege"
[1] 0.7068246



6W. Sagittal T2-T5
[1] "mean"
[1] 13.92137
[1] "sd"
[1] 8.432202
[1] "median"
```

```
[1] 13
[1] "IQR"
[1] 10.375

[1] "stats"
      diagnosis      mean       sd median   IQR   N
1: Degenerative 13.77988 8.035292     14 10.47 108
2:   Idiopathic 13.61953 8.704798     13 10.11 145
3:       others 14.96143 8.465280     14  7.00  63
[1] "p_val_idio_vs_dege"
[1] 0.8902611


2Y. Sagittal T2-T5
[1] "mean"
[1] 14.1005
[1] "sd"
[1] 10.03214
[1] "median"
[1] 12
[1] "IQR"
[1] 12.5025

[1] "stats"
      diagnosis      mean        sd median    IQR   N
1: Degenerative 13.83284 10.693265     12 11.685 108
2:   Idiopathic 13.87468  9.722451     11 11.105 145
3:       others 14.94717  9.863000     14 14.550  63
[1] "p_val_idio_vs_dege"
[1] 0.9784726


5Y. Sagittal T2-T5
[1] "mean"
[1] 15.9775
[1] "sd"
[1] 11.73164
[1] "median"
[1] 14
[1] "IQR"
[1] 11.6025

[1] "stats"
      diagnosis      mean       sd median    IQR   N
1: Degenerative 17.77759 13.66469  13.93 15.260 108
2:   Idiopathic 15.53900 11.06244  14.52  9.905 145
3:       others 15.11720 11.42075  12.75 12.760  63
[1] "p_val_idio_vs_dege"
[1] 0.4381926


Sagittal T2-T5 tests
6w vs 2y p-value
0.8297433
```

```
2y vs 5y p-value
0.1309486


Sagittal T5-T12
[1] "mean"
[1] 33.15757
[1] "sd"
[1] 18.88459
[1] "median"
[1] 31.5
[1] "IQR"
[1] 26


[1] "stats"
       diagnosis     mean       sd median      IQR   N
1: Degenerative 29.63000 15.54718     30  20.0450 108
2:    Idiopathic 32.37743 18.57109     31  24.2825 145
3:        others 40.90443 22.52277     43  32.0000  63
[1] "p_val_idio_vs_dege"
[1] 0.2115527



6W. Sagittal T5-T12
[1] "mean"
[1] 33.634
[1] "sd"
[1] 13.89727
[1] "median"
[1] 33.5
[1] "IQR"
[1] 19.9


[1] "stats"
       diagnosis     mean       sd median     IQR   N
1: Degenerative 35.22477 12.97542  35.00 17.2775 108
2:    Idiopathic 30.90636 13.18510  30.24 15.7800 145
3:        others 37.63170 15.82584  37.00 13.0000  63
[1] "p_val_idio_vs_dege"
[1] 0.01776367



2Y. Sagittal T5-T12
[1] "mean"
[1] 35.73506
[1] "sd"
[1] 14.2656
[1] "median"
[1] 36
[1] "IQR"
[1] 19.44


[1] "stats"
       diagnosis     mean       sd median     IQR   N
1: Degenerative 37.51973 14.29358 38.255 16.1475 108
```

```
2:    Idiopathic 34.01099 13.95692 32.840 18.5000 145
3:        others 36.83333 14.70599 39.000 18.4050  63
[1] "p_val_idio_vs_dege"
[1] 0.1007484


5Y. Sagittal T5-T12
[1] "mean"
[1] 40.28382
[1] "sd"
[1] 17.01595
[1] "median"
[1] 39.54
[1] "IQR"
[1] 21.995

[1] "stats"
      diagnosis     mean       sd median   IQR   N
1: Degenerative 41.78103 14.78958  42.35 16.38 108
2:    Idiopathic 39.02812 17.73928  39.00 24.85 145
3:        others 42.01280 17.73977  39.34 25.50  63
[1] "p_val_idio_vs_dege"
[1] 0.4317495


Sagittal T5-T12 tests
6w vs 2y p-value
0.09387183
2y vs 5y p-value
0.01178024

Sagittal T2-T12
[1] "mean"
[1] 40.00771
[1] "sd"
[1] 19.62697
[1] "median"
[1] 39.5
[1] "IQR"
[1] 25

[1] "stats"
      diagnosis     mean       sd median   IQR   N
1: Degenerative 37.30301 16.96172 38.000 21.50 108
2:    Idiopathic 38.93901 19.06267 38.000 22.00 145
3:        others 46.93145 23.39451 48.045 34.51  63
[1] "p_val_idio_vs_dege"
[1] 0.4809201


6W. Sagittal T2-T12
[1] "mean"
[1] 43.40126
[1] "sd"
```

```
[1] 15.32812
[1] "median"
[1] 43
[1] "IQR"
[1] 18


[1] "stats"
      diagnosis     mean       sd median     IQR   N
1: Degenerative 44.90698 15.15171  46.00 17.7500 108
2:    Idiopathic 40.89068 13.84019  39.05 18.5300 145
3:        others 47.28404 18.14105  46.90 22.2975  63
[1] "p_val_idio_vs_dege"
[1] 0.04948373


2Y. Sagittal T2-T12
[1] "mean"
[1] 45.5086
[1] "sd"
[1] 15.20779
[1] "median"
[1] 45.61
[1] "IQR"
[1] 20.455


[1] "stats"
      diagnosis     mean       sd median    IQR   N
1: Degenerative 47.30595 16.46590     48 21.00 108
2:    Idiopathic 43.34895 14.39887     43 19.75 145
3:        others 47.56673 14.74794     48 22.28  63
[1] "p_val_idio_vs_dege"
[1] 0.09324584


5Y. Sagittal T2-T12
[1] "mean"
[1] 49.6021
[1] "sd"
[1] 17.39252
[1] "median"
[1] 47.61
[1] "IQR"
[1] 23.35


[1] "stats"
      diagnosis     mean       sd median     IQR   N
1: Degenerative 51.51414 18.06675  48.20 23.1500 108
2:    Idiopathic 48.30357 17.68052  47.05 22.0775 145
3:        others 51.02000 16.10418  50.83 25.2700  63
[1] "p_val_idio_vs_dege"
[1] 0.421833


Sagittal T2-T12 tests
```

```
6w vs 2y p-value
0.1190943
2y vs 5y p-value
0.02723941


Lordosis (top of L1-S1)
[1] "mean"
[1] -44.1742
[1] "sd"
[1] 20.2541
[1] "median"
[1] -45
[1] "IQR"
[1] 30.935


[1] "stats"
       diagnosis       mean       sd median   IQR    N
1: Degenerative -36.43142 18.66837  -35.5 24.00  108
2:    Idiopathic -48.28841 18.35101  -50.0 25.62  145
3:        others -47.73254 23.31689  -47.0 37.00   63
[1] "p_val_idio_vs_dege"
[1] 1.124481e-06



6W. Lordosis (top of L1-S1)
[1] "mean"
[1] -51.58366
[1] "sd"
[1] 14.56253
[1] "median"
[1] -51
[1] "IQR"
[1] 17.755


[1] "stats"
       diagnosis       mean       sd median   IQR    N
1: Degenerative -48.99673 15.69157    -49 19.05  108
2:    Idiopathic -51.81964 12.87561    -52 16.00  145
3:        others -55.73782 15.64337    -55 20.35   63
[1] "p_val_idio_vs_dege"
[1] 0.1401306



2Y. Lordosis (top of L1-S1)
[1] "mean"
[1] -51.55844
[1] "sd"
[1] 15.30574
[1] "median"
[1] -52
[1] "IQR"
[1] 21.75


[1] "stats"
```

```
        diagnosis      mean        sd median    IQR    N
1: Degenerative -47.12462 16.29188 -48.00 17.96 108
2:    Idiopathic -53.55905 13.05183 -54.04 18.25 145
3:        others -53.59000 17.09616 -54.00 23.50  63
[1] "p_val_idio_vs_dege"
[1] 0.004137948


5Y. Lordosis (top of L1-S1)
[1] "mean"
[1] -50.8096
[1] "sd"
[1] 16.16677
[1] "median"
[1] -52.59
[1] "IQR"
[1] 21.23

[1] "stats"
        diagnosis      mean        sd median    IQR    N
1: Degenerative -45.80267 15.35984 -45.155 17.12 108
2:    Idiopathic -51.21643 14.41417 -53.780 18.42 145
3:        others -55.67880 20.28443 -56.920 22.23  63
[1] "p_val_idio_vs_dege"
[1] 0.1060331


Lordosis (top of L1-S1) tests
6w vs 2y p-value
0.9843705
2y vs 5y p-value
0.6673397

Pelvic Incidence
[1] "mean"
[1] 54.11681
[1] "sd"
[1] 12.75079
[1] "median"
[1] 53
[1] "IQR"
[1] 19.24

[1] "stats"
        diagnosis     mean        sd median    IQR    N
1: Degenerative 56.79150 13.10545     56 19.5000 108
2:    Idiopathic 52.20993 12.44564     52 17.1525 145
3:        others 53.92968 12.19979     52 18.2500  63
[1] "p_val_idio_vs_dege"
[1] 0.005590808


6W. Pelvic Incidence
[1] "mean"
```

```
[1] 54.15233
[1] "sd"
[1] 12.59486
[1] "median"
[1] 53.44
[1] "IQR"
[1] 18.64


[1] "stats"
      diagnosis    mean       sd median    IQR   N
1: Degenerative 57.07830 12.99847  54.21 18.155 108
2:    Idiopathic 52.68321 12.29699  53.00 16.000 145
3:        others 52.49182 11.83654  51.00 17.000  63
[1] "p_val_idio_vs_dege"
[1] 0.009189919



2Y. Pelvic Incidence
[1] "mean"
[1] 53.85629
[1] "sd"
[1] 12.44315
[1] "median"
[1] 53
[1] "IQR"
[1] 17


[1] "stats"
      diagnosis    mean       sd median  IQR   N
1: Degenerative 56.96455 13.79037  57.000 23.0 108
2:    Idiopathic 52.66878 12.07634  53.000 16.0 145
3:        others 52.02107 10.50545  50.415 12.5  63
[1] "p_val_idio_vs_dege"
[1] 0.02780739



5Y. Pelvic Incidence
[1] "mean"
[1] 54.87136
[1] "sd"
[1] 12.16575
[1] "median"
[1] 54.16
[1] "IQR"
[1] 18.67


[1] "stats"
      diagnosis    mean       sd median     IQR   N
1: Degenerative 56.33100 12.74842  54.775 16.6575 108
2:    Idiopathic 53.92614 12.11654  53.330 19.2625 145
3:        others 55.76640 11.83768  55.130 18.0900  63
[1] "p_val_idio_vs_dege"
[1] 0.3843371
```

```
Pelvic Incidence tests
6w vs 2y p-value
0.7842142
2y vs 5y p-value
0.4510473


Pelvic Tilt
[1] "mean"
[1] 22.01349
[1] "sd"
[1] 10.87544
[1] "median"
[1] 22
[1] "IQR"
[1] 16.25


[1] "stats"
      diagnosis     mean          sd median  IQR   N
1: Degenerative 26.52500  9.054062     27 11.0 108
2:    Idiopathic 18.89014 10.690055     18 15.0 145
3:        others 21.38300 11.665591     20 15.5  63
[1] "p_val_idio_vs_dege"
[1] 5.011228e-09


6W. Pelvic Tilt
[1] "mean"
[1] 18.15285
[1] "sd"
[1] 9.579329
[1] "median"
[1] 17.51
[1] "IQR"
[1] 13.55

[1] "stats"
      diagnosis     mean          sd median   IQR   N
1: Degenerative 22.28630  8.205987     22 11.61 108
2:    Idiopathic 15.92139  9.401128     15 11.35 145
3:        others 16.15963 10.018699     14 13.96  63
[1] "p_val_idio_vs_dege"
[1] 8.199338e-08


2Y. Pelvic Tilt
[1] "mean"
[1] 19.26158
[1] "sd"
[1] 9.67103
[1] "median"
[1] 19
[1] "IQR"
[1] 14.775
```

```
[1] "stats"
        diagnosis     mean       sd median  IQR   N
1: Degenerative 24.35390 8.515734   25.0 11.0 108
2:    Idiopathic 16.95974 9.688532   15.0 14.0 145
3:        others 16.94554 8.515809   15.5 11.5  63
[1] "p_val_idio_vs_dege"
[1] 9.590235e-08


5Y. Pelvic Tilt
[1] "mean"
[1] 21.71664
[1] "sd"
[1] 10.25609
[1] "median"
[1] 22.39
[1] "IQR"
[1] 13.02

[1] "stats"
        diagnosis     mean       sd median     IQR   N
1: Degenerative 26.19767  8.049094  25.31  7.9625 108
2:    Idiopathic 20.22786 10.183548  20.53 17.1225 145
3:        others 20.50800 11.573524  21.00 11.7400  63
[1] "p_val_idio_vs_dege"
[1] 0.002575666


Pelvic Tilt tests
6w vs 2y p-value
0.1838049
2y vs 5y p-value
0.02719146

Sacral Slope
[1] "mean"
[1] 32.63161
[1] "sd"
[1] 11.14336
[1] "median"
[1] 33
[1] "IQR"
[1] 14.08

[1] "stats"
        diagnosis     mean       sd median     IQR   N
1: Degenerative 30.65123 11.42943 30.070 15.3750 108
2:    Idiopathic 33.64396 10.70326 34.075 13.3575 145
3:        others 33.68311 11.37612 32.000 16.0000  63
[1] "p_val_idio_vs_dege"
[1] 0.03674205
```

```
6W. Sacral Slope
[1] "mean"
[1] 35.97939
[1] "sd"
[1] 10.08457
[1] "median"
[1] 35
[1] "IQR"
[1] 14

[1] "stats"
     diagnosis     mean        sd median     IQR   N
1: Degenerative 34.64180 10.985572     34 16.1025 108
2:   Idiopathic 36.71261  9.033896     36 11.8775 145
3:       others 36.57164 10.797165     34 17.0000  63
[1] "p_val_idio_vs_dege"
[1] 0.1242142


2Y. Sacral Slope
[1] "mean"
[1] 34.68847
[1] "sd"
[1] 10.23718
[1] "median"
[1] 34.5
[1] "IQR"
[1] 13.1

[1] "stats"
     diagnosis     mean        sd median     IQR   N
1: Degenerative 32.51948 11.193133 32.000 14.0000 108
2:   Idiopathic 35.89130  9.389213 36.000 13.0000 145
3:       others 35.20071 10.243018 33.345 12.5725  63
[1] "p_val_idio_vs_dege"
[1] 0.03093775


5Y. Sacral Slope
[1] "mean"
[1] 33.17064
[1] "sd"
[1] 10.51063
[1] "median"
[1] 33.28
[1] "IQR"
[1] 13.79

[1] "stats"
     diagnosis     mean        sd median    IQR   N
1: Degenerative 30.13500 10.938054 30.480 13.145 108
2:   Idiopathic 33.72614  9.643234 34.225 11.455 145
3:       others 35.25800 11.912307 33.410 15.600  63
[1] "p_val_idio_vs_dege"
```

```
[1] 0.125763


Sacral Slope tests
6w vs 2y p-value
0.1417728
2y vs 5y p-value
0.1854322

LGap
[1] "mean"
[1] 17.63533
[1] "sd"
[1] 19.8406
[1] "median"
[1] 17.1365
[1] "IQR"
[1] 30.05

[1] "stats"
      diagnosis     mean       sd median      IQR   N
1: Degenerative 26.81531 17.29451  27.31 22.31360 108
2:   Idiopathic 12.30322 17.80863  11.34 27.76020 145
3:       others 14.32477 22.88993  16.94 35.60205  63
[1] "p_val_idio_vs_dege"
[1] 5.691782e-10


6W. LGap
[1] "mean"
[1] 10.12703
[1] "sd"
[1] 13.00174
[1] "median"
[1] 10.0795
[1] "IQR"
[1] 16.965

[1] "stats"
      diagnosis      mean       sd  median     IQR    N
1: Degenerative 14.385582 12.64445 14.7184 16.6947  108
2:   Idiopathic  8.948632 11.74145  9.1100 15.2100  145
3:       others  5.208648 14.47557  4.7500 17.4826   63
[1] "p_val_idio_vs_dege"
[1] 0.0009181772


2Y. LGap
[1] "mean"
[1] 10.24074
[1] "sd"
[1] 14.52541
[1] "median"
[1] 9.3528
```

```
[1] "IQR"
[1] 18.8377

[1] "stats"
     diagnosis     mean       sd median     IQR   N
1: Degenerative 16.740075 14.74306 15.2624 17.9200 108
2:   Idiopathic  7.437230 12.17300  6.5616 17.4772 145
3:       others  7.061379 15.94280  6.1300 20.6350  63
[1] "p_val_idio_vs_dege"
[1] 9.769868e-06


5Y. LGap
[1] "mean"
[1] 11.38093
[1] "sd"
[1] 14.56427
[1] "median"
[1] 11.833
[1] "IQR"
[1] 19.7292

[1] "stats"
     diagnosis     mean       sd median     IQR   N
1: Degenerative 17.176073 13.40559 13.7375 18.3668 108
2:   Idiopathic 10.463689 13.45494 11.3477 17.6561 145
3:       others  6.995056 17.14192  6.3742 17.9692  63
[1] "p_val_idio_vs_dege"
[1] 0.0257462


LGap tests
6w vs 2y p-value
0.9243776
2y vs 5y p-value
0.4756898

Global Tilt
[1] "mean"
[1] 25.99693
[1] "sd"
[1] 17.53483
[1] "median"
[1] 24.075
[1] "IQR"
[1] 25.31

[1] "stats"
     diagnosis     mean       sd median     IQR   N
1: Degenerative 34.84902 15.08754 33.500 22.7500 108
2:   Idiopathic 19.28086 16.22286 17.000 21.0000 145
3:       others 26.68833 17.80250 22.805 27.4175  63
[1] "p_val_idio_vs_dege"
[1] 4.832998e-13
```

```
6W. Global Tilt
[1] "mean"
[1] 18.68068
[1] "sd"
[1] 12.09692
[1] "median"
[1] 18
[1] "IQR"
[1] 16


[1] "stats"
        diagnosis     mean          sd median    IQR   N
1: Degenerative 24.72820  9.982189      24 13.41 108
2:    Idiopathic 15.51376 11.804207      16 16.00 145
3:        others 15.77531 12.391930      15 14.00  63
[1] "p_val_idio_vs_dege"
[1] 3.676519e-09


2Y. Global Tilt
[1] "mean"
[1] 20.90642
[1] "sd"
[1] 14.20046
[1] "median"
[1] 19.97
[1] "IQR"
[1] 23


[1] "stats"
        diagnosis     mean          sd median    IQR   N
1: Degenerative 29.61789 11.86079   30.00 16.02 108
2:    Idiopathic 16.84706 13.59400   14.90 21.00 145
3:        others 17.31367 13.19291   15.91 11.00  63
[1] "p_val_idio_vs_dege"
[1] 3.967959e-10


5Y. Global Tilt
[1] "mean"
[1] 24.4828
[1] "sd"
[1] 15.65169
[1] "median"
[1] 24.44
[1] "IQR"
[1] 20.69


[1] "stats"
        diagnosis     mean          sd median     IQR   N
1: Degenerative 32.50333 15.60365   30.41 10.4925 108
2:    Idiopathic 22.01857 14.96633   20.43 23.2850 145
```

```
3:        others 21.75800 14.88886   21.72 17.2800   63
[1] "p_val_idio_vs_dege"
[1] 0.002952687


Global Tilt tests
6w vs 2y p-value
0.06400325
2y vs 5y p-value
0.03488173

T1 Sagittal Tilt
[1] "mean"
[1] -2.117953
[1] "sd"
[1] 5.946738
[1] "median"
[1] -3.5742
[1] "IQR"
[1] 7


[1] "stats"
       diagnosis        mean         sd median       IQR   N
1: Degenerative  0.3540693 6.748525      -1 8.666032 108
2:    Idiopathic -4.2934791 4.371221      -5 4.000000 145
3:        others -1.3769292 5.848821      -2 7.000000  63
[1] "p_val_idio_vs_dege"
[1] 2.919556e-08


6W. T1 Sagittal Tilt
[1] "mean"
[1] -3.330343
[1] "sd"
[1] 4.129364
[1] "median"
[1] -4
[1] "IQR"
[1] 4.907337

[1] "stats"
       diagnosis       mean        sd    median       IQR   N
1: Degenerative -2.635655 4.393720 -3.670955 6.525000 108
2:    Idiopathic -3.974242 3.741598 -4.000000 4.731579 145
3:        others -2.958952 4.405216 -3.500000 5.366500  63
[1] "p_val_idio_vs_dege"
[1] 0.02650899


2Y. T1 Sagittal Tilt
[1] "mean"
[1] -3.794678
[1] "sd"
[1] 4.352309
```

```
[1] "median"
[1] -4.232114
[1] "IQR"
[1] 4.911149

[1] "stats"
      diagnosis      mean       sd    median      IQR   N
1: Degenerative -2.221293 5.042908 -3.000000 7.000000 108
2:   Idiopathic -4.697019 3.370957 -5.000000 4.288561 145
3:       others -4.073389 4.642130 -4.483222 4.250000  63
[1] "p_val_idio_vs_dege"
[1] 0.0006126182


5Y. T1 Sagittal Tilt
[1] "mean"
[1] -2.848132
[1] "sd"
[1] 5.127965
[1] "median"
[1] -3.240075
[1] "IQR"
[1] 4.759189

[1] "stats"
      diagnosis       mean       sd    median      IQR   N
1: Degenerative -0.5840683 7.199003 -1.864733 5.071073 108
2:   Idiopathic -3.4514621 3.951385 -4.083614 4.208437 145
3:       others -3.8998166 4.393209 -3.638941 5.549698  63
[1] "p_val_idio_vs_dege"
[1] 0.04739332


T1 Sagittal Tilt tests
6w vs 2y p-value
0.2425672
2y vs 5y p-value
0.08501019
```

Quality of Life

```
ODI - Score (%)_First Visit
[1] "mean"
[1] 37.15615
[1] "sd"
[1] 19.64125
[1] "median"
[1] 38
[1] "IQR"
[1] 29

[1] "stats"
      diagnosis      mean        sd median   IQR   N
```

```
1: Degenerative 47.00000 16.40356     48 26.00 108
2:   Idiopathic 29.90000 18.51940     30 30.25 145
3:       others 36.83929 20.23748     34 29.00  63
[1] "p_val_idio_vs_dege"
[1] 5.466457e-13


2Y. ODI - Score (%)
[1] "mean"
[1] 27.1512
[1] "sd"
[1] 21.27678
[1] "median"
[1] 22
[1] "IQR"
[1] 31

[1] "stats"
      diagnosis     mean       sd median   IQR   N
1: Degenerative 34.80612 23.14529   30.5 37.25 108
2:   Idiopathic 21.17778 17.80947   16.0 22.00 145
3:       others 28.12069 21.44113   21.0 32.75  63
[1] "p_val_idio_vs_dege"
[1] 2.432407e-06


5Y. ODI - Score (%)
[1] "mean"
[1] 28.13208
[1] "sd"
[1] 21.13086
[1] "median"
[1] 24
[1] "IQR"
[1] 31.25

[1] "stats"
      diagnosis     mean      sd median   IQR   N
1: Degenerative 34.51351 22.8882   28.5 34.75 108
2:   Idiopathic 23.82653 19.3620   20.0 28.00 145
3:       others 26.87500 19.4240   25.0 34.00  63
[1] "p_val_idio_vs_dege"
[1] 0.001506982


ODI - Score (%)_First Visit tests2y vs 5y p-value
0.6084934

SRS22 - Function / Activity_First Visit
[1] "mean"
[1] 3.080265
[1] "sd"
[1] 0.882816
[1] "median"
```

```
[1] 3
[1] "IQR"
[1] 1.1

[1] "stats"
      diagnosis       mean          sd median  IQR   N
1: Degenerative 2.730095 0.6509881   2.75 0.80 108
2:    Idiopathic 3.388865 0.9019123   3.20 1.45 145
3:        others 2.959821 0.9488471   3.00 1.25  63
[1] "p_val_idio_vs_dege"
[1] 1.878991e-10


2Y. SRS22 - Function / Activity
[1] "mean"
[1] 3.475876
[1] "sd"
[1] 0.9267519
[1] "median"
[1] 3.5
[1] "IQR"
[1] 1.4

[1] "stats"
      diagnosis       mean          sd median   IQR   N
1: Degenerative 3.130101 0.8500642    3.2 1.275 108
2:    Idiopathic 3.712868 0.8826517    3.8 1.400 145
3:        others 3.511607 0.9865915    3.6 1.425  63
[1] "p_val_idio_vs_dege"
[1] 7.225804e-07


5Y. SRS22 - Function / Activity
[1] "mean"
[1] 3.514279
[1] "sd"
[1] 0.922512
[1] "median"
[1] 3.5
[1] "IQR"
[1] 1.2

[1] "stats"
      diagnosis       mean          sd median IQR   N
1: Degenerative 3.203014 0.8937106    3.2 1.2 108
2:    Idiopathic 3.699505 0.8831335    3.8 1.4 145
3:        others 3.612195 0.9445753    3.4 1.4  63
[1] "p_val_idio_vs_dege"
[1] 0.0003792368


SRS22 - Function / Activity_First Visit tests2y vs 5y p-value
0.6443057
```

```
SRS22 - Pain_First Visit
[1] "mean"
[1] 2.623841
[1] "sd"
[1] 0.9758274
[1] "median"
[1] 2.6
[1] "IQR"
[1] 1.2


[1] "stats"
      diagnosis     mean        sd median  IQR   N
1: Degenerative 2.392571 0.8134365   2.40 1.00 108
2:   Idiopathic 2.857234 1.0413762   2.80 1.80 145
3:       others 2.469821 0.9663361   2.45 1.45  63
[1] "p_val_idio_vs_dege"
[1] 0.0001115646




2Y. SRS22 - Pain
[1] "mean"
[1] 3.492955
[1] "sd"
[1] 1.09944
[1] "median"
[1] 3.75
[1] "IQR"
[1] 1.65


[1] "stats"
      diagnosis     mean       sd median  IQR   N
1: Degenerative 3.323737 1.183417   3.60 1.75 108
2:   Idiopathic 3.640074 1.023336   3.90 1.40 145
3:       others 3.434821 1.095068   3.45 1.65  63
[1] "p_val_idio_vs_dege"
[1] 0.03359602




5Y. SRS22 - Pain
[1] "mean"
[1] 3.381628
[1] "sd"
[1] 1.126051
[1] "median"
[1] 3.4
[1] "IQR"
[1] 1.9


[1] "stats"
      diagnosis     mean       sd median IQR   N
1: Degenerative 3.293836 1.147308    3.4 2.0 108
2:   Idiopathic 3.483168 1.090580    3.6 1.6 145
3:       others 3.287805 1.179766    3.4 2.2  63
[1] "p_val_idio_vs_dege"
```

```
[1] 0.2745523


SRS22 - Pain_First Visit tests2y vs 5y p-value
0.2674046

SRS22 - Self image / Appearance_First Visit
[1] "mean"
[1] 2.407119
[1] "sd"
[1] 0.7341006
[1] "median"
[1] 2.4
[1] "IQR"
[1] 1.15


[1] "stats"
        diagnosis     mean        sd median  IQR   N
1: Degenerative 2.252571 0.6872689    2.2 1.00 108
2:   Idiopathic 2.566312 0.7282684    2.5 1.20 145
3:       others 2.296071 0.7635150    2.2 0.85  63
[1] "p_val_idio_vs_dege"
[1] 0.0006615272


2Y. SRS22 - Self image / Appearance
[1] "mean"
[1] 3.432646
[1] "sd"
[1] 0.9237291
[1] "median"
[1] 3.6
[1] "IQR"
[1] 1.4


[1] "stats"
        diagnosis     mean        sd median    IQR   N
1: Degenerative 3.177273 0.9341392    3.4 1.2000 108
2:   Idiopathic 3.642279 0.8430517    3.8 1.2125 145
3:       others 3.375000 0.9850242    3.6 1.4500  63
[1] "p_val_idio_vs_dege"
[1] 0.000119898


5Y. SRS22 - Self image / Appearance
[1] "mean"
[1] 3.375581
[1] "sd"
[1] 0.922662
[1] "median"
[1] 3.6
[1] "IQR"
[1] 1.2
```

```
[1] "stats"
       diagnosis     mean        sd median IQR   N
1: Degenerative 3.123288 0.9914594    3.2 1.4 108
2:    Idiopathic 3.574257 0.8215417    3.8 1.2 145
3:        others 3.335366 0.9382326    3.2 1.4  63
[1] "p_val_idio_vs_dege"
[1] 0.001838783


SRS22 - Self image / Appearance_First Visit tests2y vs 5y p-value
0.4921839

SRS22 - Mental health_First Visit
[1] "mean"
[1] 3.179238
[1] "sd"
[1] 0.8769695
[1] "median"
[1] 3.2
[1] "IQR"
[1] 1.2


[1] "stats"
       diagnosis     mean        sd median IQR   N
1: Degenerative 3.106952 0.9842892    3.0 1.6 108
2:    Idiopathic 3.269858 0.8269755    3.2 1.0 145
3:        others 3.086607 0.7722747    3.0 1.0  63
[1] "p_val_idio_vs_dege"
[1] 0.1712753


2Y. SRS22 - Mental health
[1] "mean"
[1] 3.517354
[1] "sd"
[1] 0.9470824
[1] "median"
[1] 3.6
[1] "IQR"
[1] 1.2


[1] "stats"
       diagnosis     mean        sd median  IQR   N
1: Degenerative 3.362121 1.0616480    3.6 1.70 108
2:    Idiopathic 3.636029 0.8623545    3.8 1.20 145
3:        others 3.503571 0.9041247    3.5 1.25  63
[1] "p_val_idio_vs_dege"
[1] 0.03621671


5Y. SRS22 - Mental health
[1] "mean"
[1] 3.554884
[1] "sd"
```

```
[1] 0.8930871
[1] "median"
[1] 3.6
[1] "IQR"
[1] 1.2


[1] "stats"
      diagnosis     mean        sd median IQR   N
1: Degenerative 3.400000 1.0115994    3.4 1.6 108
2:   Idiopathic 3.712871 0.8194710    3.8 1.0 145
3:       others 3.441463 0.7914309    3.6 1.0  63
[1] "p_val_idio_vs_dege"
[1] 0.03127406


SRS22 - Mental health_First Visit tests2y vs 5y p-value
0.649045

SRS22 - SRS Subtotal score_First Visit
[1] "mean"
[1] 2.827848
[1] "sd"
[1] 0.6994789
[1] "median"
[1] 2.8
[1] "IQR"
[1] 0.9225


[1] "stats"
      diagnosis     mean        sd median    IQR   N
1: Degenerative 2.630381 0.6310155   2.65 0.9600 108
2:   Idiopathic 3.022624 0.7157420   2.95 0.9700 145
3:       others 2.707679 0.6590268   2.62 0.7175  63
[1] "p_val_idio_vs_dege"
[1] 8.497626e-06


2Y. SRS22 - SRS Subtotal score
[1] "mean"
[1] 3.479278
[1] "sd"
[1] 0.8481069
[1] "median"
[1] 3.65
[1] "IQR"
[1] 1.26

[1] "stats"
      diagnosis     mean        sd median    IQR   N
1: Degenerative 3.245455 0.8986319   3.47 1.4750 108
2:   Idiopathic 3.657868 0.7605528   3.85 1.2275 145
3:       others 3.458929 0.8695969   3.66 1.3750  63
[1] "p_val_idio_vs_dege"
[1] 0.0002803225
```

```
5Y. SRS22 - SRS Subtotal score
[1] "mean"
[1] 3.441528
[1] "sd"
[1] 0.8783351
[1] "median"
[1] 3.5
[1] "IQR"
[1] 1.315


[1] "stats"
      diagnosis      mean         sd median    IQR   N
1: Degenerative 3.211892 0.9635361   3.35 1.3725 108
2:    Idiopathic 3.618119 0.7940148   3.80 1.2000 145
3:        others 3.420976 0.8363337   3.30 1.4200  63
[1] "p_val_idio_vs_dege"
[1] 0.003579397



SRS22 - SRS Subtotal score_First Visit tests2y vs 5y p-value
0.6274817


SF36 - PCS_First Visit
[1] "mean"
[1] 36.44554
[1] "sd"
[1] 9.502467
[1] "median"
[1] 35.305
[1] "IQR"
[1] 12.9475


[1] "stats"
      diagnosis      mean         sd median    IQR   N
1: Degenerative 32.82714  7.142526   31.75  7.62 108
2:    Idiopathic 39.34489  9.786254   40.00 13.17 145
3:        others 36.24054 10.433105   37.76 13.47  63
[1] "p_val_idio_vs_dege"
[1] 8.993241e-09



2Y. SF36 - PCS
[1] "mean"
[1] 42.16451
[1] "sd"
[1] 10.3725
[1] "median"
[1] 42.665
[1] "IQR"
[1] 15.875


[1] "stats"
```

```
        diagnosis      mean         sd median      IQR    N
1: Degenerative 39.13219   9.594490   38.82 14.9025 108
2:    Idiopathic 44.42244   9.987017   45.60 15.0050 145
3:        others 42.08508 11.295740   42.35 16.1400  63
[1] "p_val_idio_vs_dege"
[1] 7.700777e-05


5Y. SF36 - PCS
[1] "mean"
[1] 41.79438
[1] "sd"
[1] 11.17991
[1] "median"
[1] 41.92
[1] "IQR"
[1] 16.4625

[1] "stats"
        diagnosis      mean         sd median     IQR    N
1: Degenerative 38.61944 10.37307   40.11 13.740 108
2:    Idiopathic 43.85439 10.28463   45.04 17.145 145
3:        others 42.36854 13.40318   42.38 21.180  63
[1] "p_val_idio_vs_dege"
[1] 0.001425231


SF36 - PCS_First Visit tests2y vs 5y p-value
0.7074415

SF36 - MCS_First Visit
[1] "mean"
[1] 42.92071
[1] "sd"
[1] 12.21683
[1] "median"
[1] 42.03
[1] "IQR"
[1] 19.2475

[1] "stats"
        diagnosis      mean         sd median     IQR    N
1: Degenerative 41.57448 13.31202   39.680 20.930 108
2:    Idiopathic 44.09067 11.13228   44.030 18.035 145
3:        others 42.62446 12.51392   41.215 14.560  63
[1] "p_val_idio_vs_dege"
[1] 0.1206195


2Y. SF36 - MCS
[1] "mean"
[1] 46.7894
[1] "sd"
[1] 12.26477
```

```
[1] "median"
[1] 48.92
[1] "IQR"
[1] 17.49


[1] "stats"
       diagnosis      mean       sd median      IQR   N
1: Degenerative 45.83333 12.88747 46.805 20.6975 108
2:    Idiopathic 47.79554 10.87855 50.410 15.2450 145
3:        others 46.12814 14.03873 49.980 19.0750  63
[1] "p_val_idio_vs_dege"
[1] 0.2287672



5Y. SF36 - MCS
[1] "mean"
[1] 47.62
[1] "sd"
[1] 11.38044
[1] "median"
[1] 49.3
[1] "IQR"
[1] 17.795


[1] "stats"
       diagnosis      mean       sd median      IQR   N
1: Degenerative 46.54250 12.44795 47.320 21.0550 108
2:    Idiopathic 48.49776 11.07384 50.535 17.4825 145
3:        others 47.41415 10.17418 49.610 11.7000  63
[1] "p_val_idio_vs_dege"
[1] 0.2910071



SF36 - MCS_First Visit tests2y vs 5y p-value
0.43733
```

Surgery

```
Total Operative Blood Loss st1+st2+st3
[1] "mean"
[1] 1555.871
[1] "sd"
[1] 1339.169
[1] "median"
[1] 1200
[1] "IQR"
[1] 1400


[1] "stats"
       diagnosis      mean       sd median  IQR   N
1: Degenerative 1617.663 1517.843   1200 1575 108
2:    Idiopathic 1335.775 1062.199   1100 1200 145
3:        others 1812.036 1399.577   1600 1875  63
```

```
[1] "p_val_idio_vs_dege"
[1] 0.1531397


Total surgical time st1+st2+st3
[1] "mean"
[1] 312.3079
[1] "sd"
[1] 162.0614
[1] "median"
[1] 298
[1] "IQR"
[1] 200.5

[1] "stats"
      diagnosis     mean       sd median   IQR   N
1: Degenerative 315.9907 161.4129    298 204.5 108
2:   Idiopathic 290.4690 157.3778    275 167.0 145
3:       others 356.3175 166.8466    365 292.5  63
[1] "p_val_idio_vs_dege"
[1] 0.2111942


Number of Posterior Instrumented Levels
[1] "mean"
[1] 9.196203
[1] "sd"
[1] 4.505318
[1] "median"
[1] 9
[1] "IQR"
[1] 6

[1] "stats"
      diagnosis      mean       sd median IQR   N
1: Degenerative  7.898148 4.046320      8 4.0 108
2:   Idiopathic 10.268966 4.514260     11 5.0 145
3:       others  8.952381 4.674669      9 6.5  63
[1] "p_val_idio_vs_dege"
[1] 1.719763e-05


Pelvic Fixation
[1] "table"
variable
 No Yes
200 116
[1] "proportion"
variable
       No       Yes
0.6329114 0.3670886

[1] "table_idiopathic"
```

```
 No Yes
106  39
[1] "proportion_idiopathic"

        No       Yes
0.7310345 0.2689655
[1] "table_degenerative"

 No Yes
 52  56
[1] "proportion_degenerative"

        No       Yes
0.4814815 0.5185185
[1] "p_val_Yes"
[1] 8.738812e-05
[1] "p_val_No"
[1] 8.738812e-05


Surgical Approach
[1] "table"
variable
                  Anterior         Anterior-Posterior
                         1                          2
                 Posterior         Posterior-Anterior
                       299                         11
        Posterior-Posterior Posterior-Posterior-Anterior
                         2                          1
[1] "proportion"
variable
                  Anterior         Anterior-Posterior
               0.003164557                0.006329114
                 Posterior         Posterior-Anterior
               0.946202532                0.034810127
        Posterior-Posterior Posterior-Posterior-Anterior
               0.006329114                0.003164557


Warning in prop.test(c(n_idio_var, n_dege_var), c(n_idio, n_dege)): Chi-squared
approximation may be incorrect

Warning in prop.test(c(n_idio_var, n_dege_var), c(n_idio, n_dege)): Chi-squared
approximation may be incorrect

Warning in prop.test(c(n_idio_var, n_dege_var), c(n_idio, n_dege)): Chi-squared
approximation may be incorrect

Warning in prop.test(c(n_idio_var, n_dege_var), c(n_idio, n_dege)): Chi-squared
approximation may be incorrect

Warning in prop.test(c(n_idio_var, n_dege_var), c(n_idio, n_dege)): Chi-squared
approximation may be incorrect


[1] "table_idiopathic"
```

```
                       Posterior           Posterior-Anterior
                           141                            2
         Posterior-Posterior Posterior-Posterior-Anterior
                             1                            1
[1] "proportion_idiopathic"

                       Posterior           Posterior-Anterior
             0.972413793                   0.013793103
         Posterior-Posterior Posterior-Posterior-Anterior
             0.006896552                   0.006896552
[1] "table_degenerative"

Anterior-Posterior           Posterior Posterior-Anterior
               1                  98                 9
[1] "proportion_degenerative"

Anterior-Posterior           Posterior Posterior-Anterior
       0.009259259         0.907407407        0.083333333
[1] "p_val_Posterior"
[1] 0.05011895
[1] "p_val_Anterior-Posterior"
[1] 0.8822421
[1] "p_val_Posterior-Anterior"
[1] 0.01773229
[1] "p_val_Posterior-Posterior-Anterior"
[1] 1
[1] "p_val_Posterior-Posterior"
[1] 1
[1] "p_val_Anterior"
[1] NaN


Number of Interbody Fusions
[1] "mean"
[1] 0.7879747
[1] "sd"
[1] 1.158535
[1] "median"
[1] 0
[1] "IQR"
[1] 1

[1] "stats"
        diagnosis      mean           sd median IQR   N
1: Degenerative 1.4907407 1.3219595      1   2 108
2:   Idiopathic 0.4275862 0.7335684      0   1 145
3:       others 0.4126984 1.1163726      0   0  63
[1] "p_val_idio_vs_dege"
[1] 3.685972e-12


Decompression
[1] "table"
```

```
variable
 No Yes
229  87
[1] "proportion"
variable
        No       Yes
0.7246835 0.2753165


[1] "table_idiopathic"

 No Yes
127  18
[1] "proportion_idiopathic"


        No       Yes
0.8758621 0.1241379
[1] "table_degenerative"

 No Yes
 54  54
[1] "proportion_degenerative"

 No Yes
0.5 0.5
[1] "p_val_No"
[1] 1.429272e-10
[1] "p_val_Yes"
[1] 1.429272e-10


Interbody Fusion
[1] "table"
variable
 No Yes
184 132
[1] "proportion"
variable
        No       Yes
0.5822785 0.4177215

[1] "table_idiopathic"

 No Yes
103  42
[1] "proportion_idiopathic"


        No       Yes
0.7103448 0.2896552
[1] "table_degenerative"

 No Yes
 31  77
[1] "proportion_degenerative"
```

```
        No      Yes
0.287037 0.712963
[1] "p_val_No"
[1] 5.944014e-11
[1] "p_val_Yes"
[1] 5.944014e-11


Osteotomy
[1] "table"
variable
 No Yes
172 144
[1] "proportion"
variable
        No       Yes
0.5443038 0.4556962

[1] "table_idiopathic"

 No Yes
 97  48
[1] "proportion_idiopathic"

        No       Yes
0.6689655 0.3310345
[1] "table_degenerative"

 No Yes
 55  53
[1] "proportion_degenerative"

        No       Yes
0.5092593 0.4907407
[1] "p_val_No"
[1] 0.01485603
[1] "p_val_Yes"
[1] 0.01485603


3CO
[1] "table"
variable
 No Yes
266  50
[1] "proportion"
variable
        No       Yes
0.8417722 0.1582278

[1] "table_idiopathic"

 No Yes
136   9
```

```
[1] "proportion_idiopathic"

        No       Yes
0.93793103 0.06206897
[1] "table_degenerative"

 No Yes
 94  14
[1] "proportion_degenerative"

       No       Yes
0.8703704 0.1296296
[1] "p_val_No"
[1] 0.1035527
[1] "p_val_Yes"
[1] 0.1035527


uiv_t10_12_l1
[1] "table"
variable
 No Yes
291  25
[1] "proportion"
variable
        No       Yes
0.92088608 0.07911392

[1] "table_idiopathic"

 No Yes
142   3
[1] "proportion_idiopathic"

        No       Yes
0.97931034 0.02068966
[1] "table_degenerative"

 No Yes
 90  18
[1] "proportion_degenerative"

       No       Yes
0.8333333 0.1666667
[1] "p_val_No"
[1] 8.408213e-05
[1] "p_val_Yes"
[1] 8.408213e-05
```