Statistical analyses for the C1 – C2 fusion study.

1. Demographic information
   1. Average and Sd – age, sex , smoking status, insurance, time of followup
2. Surgical information
   1. Type of technique used
      1. GH (with titanium cable for graft),
      2. GH
      3. TA
      4. TA (titanium cable for graft ) ,
      5. TA with c3-7 laminoplasty,
      6. Unilateral GH ( with titanium cable for graft) ,
      7. Unilateral TA with c3-7 laminoplasty,
      8. Unilateral TA ( with titanium cable for graft ) and
      9. Unilateral TA
   2. period of brace wear – length of wear?
   3. complications associated with surgical procedures
      1. surgical complications
         1. is there a statistical difference in GH vs TA in terms of complication rate.
      2. medical complications
   4. Need for revision surgery?
3. Radiographic information
   1. Xray
      1. Time to fusion for the **bilateral** GH , TA ( including all subgroups in point 2 , a, 1- 5) on xray
      2. Time to fusion for unilateral GH and TA
      3. Time to fusion for TA screws with cable vs with no cable
      4. Is there any statistical difference in time to fusion between
      * Bilateral - GH vs TA (no cables in each)
      * Bilateral - GH with cable vs TA with cable
      * Bilateral - GH vs GH with cable
      * Bilateral - TA vs TA with cable
      * Unilateral TA vs unilateral GH
      * Unilateral TA vs bilateral TA , bilateral GH
      * Unilateral GH vs bilateral TA, bilateral GH
      1. Is there any statistical difference in flexion extensions in each patient over time ( in patients that healed)
      2. Is there any statistical difference in flexion extensions between GH and TA ( in patients that healed) over time.
   2. CT scan
      1. Time to fusion for the **bilateral** GH , TA ( including all subgroups in point 2 , a, 1- 5) on CT
      2. Time to fusion for unilateral GH and TA
      3. Is there any statistical difference in time to fusion on CT between
      * Bilateral - GH vs TA (no cables in each)
      * Bilateral - GH with cable vs TA with cable
      * Bilateral - GH vs GH with cable
      * Bilateral - TA vs TA with cable
      * Unilateral TA vs unilateral GH
      * Unilateral TA vs bilateral TA , bilateral GH
      * Unilateral GH vs bilateral TA, bilateral GH
      1. Is there any statistical difference in time to fusion for TA with cable vs with no cable.
4. Cost information
   1. What is the average cost of implant and total cost for these groups
      1. GH (with titanium cable for graft),
      2. GH
      3. TA
      4. TA (titanium cable for graft ) ,
      5. TA with c3-7 laminoplasty,
      6. Unilateral GH ( with titanium cable for graft) ,
      7. Unilateral TA with c3-7 laminoplasty,
      8. Unilateral TA ( with titanium cable for graft ) and
      9. Unilateral TA
   2. Is there a statistically significant difference in cost of implant and total cost between
      1. GH vs TA (no cables in each)
      2. GH with cable vs TA with cable
      3. GH vs GH with cable
      4. TA vs TA with cable