Table E-1 Patient History and Radiographic Characteristics

Yes

C7-T1

None

26

M/53+0

| Pt No. | Gender/Age | History of Trauma? | Correction Level | Fixation | Initial Correction (degrees) | Loss of Correction (degrees) | Fusion Status at 3 months |
|--------|------------|-----------------------|---------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------|
| 1 | F/68+2 | No | C7-T1 | Triple Wire | -52 | +2 | Fused |
| 2 | M/72+7 | No | C7-T1 | Luque | -35 | +0 | Fused |
| 3 | M/42+0 | Yes | C7-T1 | Triple Wire | -60 | +6 | Fused |
| 4 | M/40+1 | Yes | C7-T1 | Spinous Process Wire | -23 | +5 | Not Fused |
| 5 | M/36+9 | No | C7-T1 | None | -22 | +1 | Fused |
| 6 | M/73+5 | No | C7-T1 | Luque | -37 | _ | Fused |
| 7 | M/63+6 | No | C7-T1 | Luque | -43 | _ | Fused |
| 8 | M/53+2 | Yes | C7-T1 | Luque | -26 | +0 | Fused |
| 9 | M/51+6 | No | C7-T1 | Luque | -33 | +1 | Fused |
| 10 | M/57+6 | No | C7-T1 | None | -84 | +3 | Fused |
| 11 | M/31+5 | No | C7-T1 | None | -43 | +20 | Not Fused |
| 12 | M/49+9 | No | C7-T1 | None | -30 | +3 | Fused |
| 13 | M/62+9 | Yes | C7-T1 | Sublaminar Wire | -42 | +17 | Fused |
| 14 | M/55+8 | Yes | C7-T1 | None | -78 | | |
| 15 | M/47+3 | No | C6-C7 | Luque | -58 | -3 | Fused |
| 16 | M/51+9 | Yes | C5-C6 | Luque | -30 | +0 | Fused |
| 17 | M/53+11 | No | C6-C7 | Luque | -22 | -2 | Fused |
| 18 | M/32+7 | No | C7-T1 | None, Then Spinous Process Wire | -27 | +5 | Not Fused |
| 19 | M/49+1 | Yes | C7-T1 | None | -15 | -1 | Fused |
| 20 | M/49+4 | Yes | C7-T1 | None | -39 | +3 | Fused |
| 21 | M/43+2 | No | C7-T1 | Luque | -40 | +0 | Fused |
| 22 | M/42+6 | Yes | C7-T1 | Luque | -35 | +0 | Fused |
| 23 | M/64+10 | Yes | C7-T1 | Luque | -21 | +0 | Fused |
| 24 | M/40+11 | No | C7-T1 | Luque | -35 | +3 | Fused |
| 25 | M/50+6 | Yes | C7-T1 | Luque | -20 | +0 | Fused |
| | | | | | | | |

-36

+2

Fused

| Table E- | Table E-2 Patient Duration of Follow-up, Neurologic Status and Complications | | | | | | | |
|----------|--|-----------|------------|-----------|---|--|--|--|
| ļ | Months of | Preop | Postop | Final F/U | | | | |
| Pt. No. | Follow-up | Nurick | Nurick | Nurick | Complications/Notes | | | |
| 1 | 36 | 0 | 0 | 0 | Postop arm pain + weakness, which resolved with halo adjustment; pt had | | | |
| I | | | | | postop seizure and mental status changes, which fully resolved with | | | |
| | <u> </u> | <u> </u> | | | supportive care | | | |
| 2 | 24 | 0 | 0 | 0 | None | | | |
| 3 | 29 | 1 | 1 | 1 | Motor vehicle accident two months postop, C7-T1 fracture with 100% | | | |
| I | | | | | displacement and quadriparesis, resolved to Nurick 1 after repeat posterior | | | |
| | <u> </u> | <u> </u> | | | fusion with Luque/Drummond fixation | | | |
| 4 | 150 | 0 | 0 | 0 | Used allograft bone | | | |
| 5 | 24 | 0 | 0 | 0 | Halo pin site problems, removed at two months postoperatively | | | |
| 6 | 6 | 0 | 0 | 0 | Halo off at two months (pin problems). Died six months postoperatively | | | |
| | | | | | due to respiratory failure/congestive heart failure after diagnosed with | | | |
| | | <u> </u> | | | esophageal cancer | | | |
| 7 | 9 | 2 | 0 | 0 | Halo off at two months (pin problems), Died in nursing home of cardiac | | | |
| <u> </u> | <u> </u> | <u> </u> | | | arrest at nine months post-osteotomy | | | |
| 8 | 24 | 1 | 0 | 0 | 5-cm scapular decubitus from cast, healed with windowing of cast and | | | |
| | | <u> </u> | | | local wound care over four months | | | |
| 9 | 28 | 1 | 0 | 0 | None | | | |
| 10 | 32 | 2 | 1 | 1 | Arm dysesthesias and hand intrinsic muscle weakness postop, resolved | | | |
| | | <u> </u> | | | 80% over two-year period | | | |
| 11 | 96 | 0 | 0 | 0 | None | | | |
| 12 | 89 | 1 | 0 | 0 | None | | | |
| 13 | 68 | 0 | 0 | 0 | Fell, C5-C6 fracture six years postoperatively with some loss of | | | |
| ·! | | <u></u> ' | | | correction, healed | | | |
| 14 | 0.5 | 0 | Γ — | _ | Failed wake-up test, immediate re-exploration showed 80% subluxation, | | | |
| . ! | | | | | reduced and fixed in relative kyphosis, recovered completely (except hand | | | |
| . ! | | | | | intrinsics) over three days, suddenly died in ICU two weeks post- | | | |
| ! | | <u> </u> | | | osteotomy, radiographs showed resubluxation despite halo | | | |
| 15 | 51 | 0 | 0 | 0 | None | | | |
| 16 | 45 | 0 | 0 | 0 | Dural tear, repaired uneventfully | | | |
| 17 | 53 | 2 | 0 | 0 | None | | | |
| 18 | 262 | 3 | 0 | 0 | Hand dysesthesias postop, recovered over three months. Repeat bone- | | | |
| ĹI | <u> </u> | <u> </u> | | | grafting with iliac autograft and fixed with wire at four months postop | | | |
| 19 | 43 | 0 | 0 | 0 | Lung cancer developed, had lobectomy twenty months post-osteotomy | | | |
| 20 | 24 | 0 | 0 | 0 | None | | | |
| 21 | 30 | 0 | 0 | 0 | Halo off at two months (pin problems) | | | |
| 22 | 35 | 0 | 0 | 0 | None | | | |
| 23 | 25 | 3 | 2 | 1 | Severe neck pain, hand intrinsic weakness, arm dysesthesias and ileus | | | |
| ·' | <u> </u> | | | | postop, resolved | | | |
| 24 | 24 | 0 | 0 | 0 | None | | | |
| 25 | 34 | 4 | 2 | 1 | Shoulder and arm pain postop, resolved gradually | | | |
| 26 | 24 | 0 | 0 | 0 | None | | | |