

ONLINE ONLY

Supplemental material

Resection of congenital hemivertebra in pediatric scoliosis: the experience of a two-specialty surgical team

Bixby et al.

<https://thejns.org/doi/abs/10.3171/2020.12.PEDS20783>

DISCLAIMER The *Journal of Neurosurgery* acknowledges that the following section is published verbatim as submitted by the authors and did not go through either the *Journal's* peer-review or editing process.

Supplemental Table 1: Individual Coronal Radiographic Data															
Demographics			Central Sacral Vertical Line (mm)			Major Coronal Cobb Angle (°)			Regional Coronal Deformity (°)			Correction of Regional Coronal Deformity			
Patient Number	HV	Length of Radiographic Follow-Up (Years)	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	Absolute Correction Post-Op (°)	Percent Correction Post-Op	Absolute Correction at Last Follow-Up (°)	Percent Correction at Last Follow-Up
1	L2	7.9	35.0	31.8	14.9	48.7	33.6	53.0	48.7	33.6	53.0	15.1	31%	-4.3	-9%
2	L6	1.0	-4.5	22.1	17.6	31.4	33.6	15.9	26.3	7.2	15.9	19.1	73%	10.4	40%
3	T2, L2	1.0	2.3	-21.3	-19.9	42.0	8.3	3.3	42.0	8.3	3.3	33.7	80%	38.7	92%
4	T2	1.1	58.3	38.1	37.7	64.4	23.6	26.6	64.4	23.6	26.6	40.8	63%	37.8	59%
5	T9	1.4	4.7	-1.4	14.3	40.1	18.7	20.6	40.1	18.7	20.6	21.4	53%	19.5	49%
6	L5	11.6	16.5	21.8	27.6	27.8	18.1	39.2	27.8	12.4	7.1	15.4	55%	20.7	74%
7	T10	3.7	19.4	17.5	14.0	40.8	18.2	22.4	40.8	18.2	22.4	22.6	55%	18.4	45%
8	T12	2.1	17.7	19.2	5.4	48.3	18.7	12.6	48.3	18.7	12.6	29.6	61%	35.7	74%
9	L2	3.0	7.9	-12.7	-6.1	44.1	17.0	18.6	44.1	17.0	18.6	27.1	61%	25.5	58%
10	Between L1 and L2	2.5	15.1	0.2	2.5	40.9	18.4	23.8	40.9	18.4	23.8	22.5	55%	17.1	42%
11	L1, L2	3.8	28.9	-2.3	2.9	57.5	34.5	42.8	57.5	34.5	42.8	23.0	40%	14.7	26%
12	T8	5.7	52.6	6.7	16.2	58.5	40.5	57.5	58.5	40.5	57.5	18.0	31%	1.0	2%
13	T10	6.0	43.2	13.7	28.3	31.5	30.8	44.8	31.5	30.8	44.8	0.7	2%	-13.3	-42%
14	L3	6.1	31.4	12.5	7.0	39.4	11.5	28.5	39.4	11.5	28.5	27.9	71%	10.9	28%
15	L4	11.2	4.7	12.6	-11.5	31.2	17.3	93.7	31.2	17.3	3.6	13.9	45%	27.6	88%

16	Between L4 and L5	1.5	54.5	32.0	69.4	41.5	21.5	20.5	41.5	13.2	16.2	28.3	68%	25.3	61%
17	T12	3.0	-58.7	-58.6	-41.3	39.6	25.5	34.7	39.6	25.5	34.7	14.1	36%	4.9	12%
18	T7	4.3	7.4	-5.5	21.7	58.0	27.3	44.0	58.0	27.3	44.0	30.7	53%	14.0	24%
19	T3	9.2	NA	NA	5.2	NA	NA	16.6	NA	NA	16.6	---	---	---	---
20	L3	10.2	-12.0	-7.1	25.9	28.0	4.9	24.6	28.0	4.9	24.6	23.1	83%	3.4	12%
21	Between T12 and L1	3.4	-14.6	-10.9	-12.9	49.5	21.1	26.2	49.5	21.1	26.2	28.4	57%	23.3	47%
22	Between L1 and L2	0.7	5.7	4.2	-28.7	15.9	0.7	4.1	15.9	0.7	4.1	15.2	96%	11.8	74%

HV = hemivertebra(e)

Pre-op = pre-operative radiograph, post-op = first post-operative radiograph, Follow-up = radiograph from most recent follow-up visit

Supplemental Table 2: Individual Sagittal Radiographic Data																					
Demographics			Sagittal Vertical Axis (mm)			Thoracic Kyphosis (°)			Lumbar Lordosis (°)			Regional Kyphosis (°)	Proximal Junctional Kyphosis (°)			Pelvic Incidence (°)			Pelvic Tilt (°)		
Patient Number	HV	Length of Radiographic Follow-Up (Years)	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	Pre-Op	Post-Op	Follow-Up	
1	L2	7.9	-2.7	-39.8	-57.2	44.3	42.1	28.7	-76.5	-69.8	-66.1	-2.7	-2.1	-7.5	NA	53.2	60.1	NA	6.8	12.8	
2	L6	1.0	-24.4	-69.4	18.1	2.5	11.6	26.6	-47.0	-66.6	-70.1	-28.2	-24.3	-25.2	54.4	54.7	68.0	11.8	8.7	15.4	
3	T2, L2	1.0	3.9	-12.7	-14.7	38.1	15.6	18.6	-43.9	-29.7	-37.2	3.6	0.4	0.3	61.4	40.7	39.5	23.3	16.5	11.1	
4	T2	1.1	8.6	28.7	26.5	18.5	23.0	31.0	-52.6	-37.7	-38.0	-2.4	10.9	-3.0	72	71.5	72.4	30.9	40.9	30.6	
5	T9	1.4	-32.3	-2.4	30.9	32.3	21.0	33.8	-52.8	-28.1	-39.4	5.7	12.0	1.2	40.2	38.3	42.4	8.6	20.0	8.7	
6	L5	11.6	21.4	-4.1	7.2	34.1	30.2	48.9	-43.2	-53.0	-31.8	-22.3	-11.9	-34.3	NA	41.0	32.4	NA	16.5	9.0	
7	T10	3.7	-12.9	15.2	-35.2	50.9	53.4	57.5	-59.7	-46.7	-70.5	2.5	10.6	25.0	38.0	48.6	40.2	-4.7	7.3	1.9	
8	T12	2.1	-22.9	49.3	-52.4	19.2	22.5	29.7	-37.7	-30.5	-51.8	44.6	8.1	3.7	61.4	74.4	59.5	13.5	28.9	20.4	
9	L2	3.0	27.3	45.5	84.0	18.8	4.5	0.2	1.7	-10.8	-11.8	23.9	2.5	0.6	60.8	19.5	48.8	32.4	-7.1	22.9	
10	Between L1 and L2	2.5	10.4	-19.4	-43.0	26.5	35.5	27.0	-34.0	-49.8	-49.7	9.5	5.9	-2.4	NA	50.3	45.7	NA	20.4	10.7	
11	L1, L2	3.8	39.4	7.6	79.2	17.3	37.4	22.5	-6.5	-50.3	-22.5	-2.7	1.1	-5.4	NA	67.2	52.7	NA	21.9	19.6	
12	T8	5.7	NA	NA	NA	11.2	16.0	3.9	NA	NA	NA	5.5	0.4	-12.8	NA	NA	NA	NA	NA	NA	
13	T10	6.0	-27.6	-9.5	-25.8	45.5	48.0	49.8	-56.6	-43.7	-63.7	7.8	21.6	14.0	29.6	34.9	46.2	1.0	9.9	2.7	
14	L3	6.1	-0.9	-14.7	11.0	34.1	23.9	34.3	-41.8	-34.9	-46.1	-12.6	-4.2	-7.8	NA	NA	48.3	NA	NA	6.5	
15	L4	11.2	-0.7	23.9	-37.5	31.6	45.1	58.8	-17.1	-9.9	-45.5	-2.4	-3.0	-11.4	NA	15.7	25.2	NA	15.1	1.1	
16	Between L4 and L5	1.5	-16.6	-25.2	3.2	20.1	21.1	21.2	-52.9	-42.5	-34.6	-26.1	-7.1	-10.0	66.8	NA	68.4	19.3	NA	26.0	

17	T12	3.0	36.1	-64.0	20.3	21.3	25.7	56.5	-4.5	-47.8	-31.4	9.0	6.3	19.4	32.1	40.2	26.8	10.0	1.4	7.8
18	T7	4.3	10.7	5.2	5.2	20.1	40.4	46.3	-26.6	-7.8	-64.3	25.7	18.6	9.9	42.2	NA	54.8	15.3	NA	17.5
19	T3	9.2	NA	NA	-16.0	NA	NA	21.5	NA	NA	-65.5	NA	NA	1.2	NA	NA	78.2	NA	NA	22.1
20	L3	10.2	53.9	NA	-9.9	16.7	12.3	27.4	-29.9	-27.9	-57.9	-0.6	4.1	-13.3	NA	31.2	58.3	NA	4.0	15.1
21	Between T12 and L1	3.4	- 23.3	5.6	35.5	1.5	17.3	25.4	-86.1	-29.8	-36.4	85.6	3.8	2.0	38.7	NA	59.7	17.5	NA	18.1
22	Between L1 and L2	0.7	13.9	64.8	60.8	14.3	12.0	12.6	-33.9	-32.8	-33.8	26.7	2.5	0.3	39.6	34.9	50.6	-3.2	-5.7	9.1

HV = hemivertebra(e)

Pre-Op = pre-operative radiograph, post-op = first post-operative radiograph, Follow-up = radiograph from most recent follow-up visit

NA = No appropriate imaging available, (a) = Supine or seated, no standing radiographs available, (b) = In cast or brace, (c) = After revision surgery