Supplementary Material

10.1302/0301-620X.105B4.BJJ-2023-0111

Case Report 1

This 48-year-old female patient with ankylosing spondylitis was admitted within 24 hours from injury to the MCSI in Oswestry in December 1994, having felt faint and fallen in the kitchen. She sustained a fracture of the body of C6 with significant malalignment and a very unstable cervical injury. Clinically she presented with hyperaesthesia in both thumbs and index fingers and a motor power of 4 to 5 throughout.

Despite the significant biomechanical instability and the probability of cervical cord compression the patient was treated conservatively with slow reduction of the spine and bedrest for six weeks, followed by gradual mobilization in a collar.

Her total hospitalization period from injury to discharge was 105 days.

Conservative management resulted in sparing the patient intensive care monitoring and ventilation; a short bony fusion was achieved and a range of motion (ROM) of her cervical spine similar to her pre-accident ROM.

On review 11 years postinjury, she had remained neurologically intact, able to ambulate without support, and with a limited but painless ROM of her cervical spine.

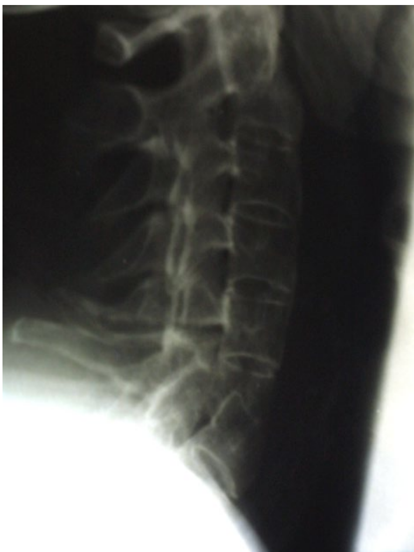

Figure a. Lateral radiograph on presentation.

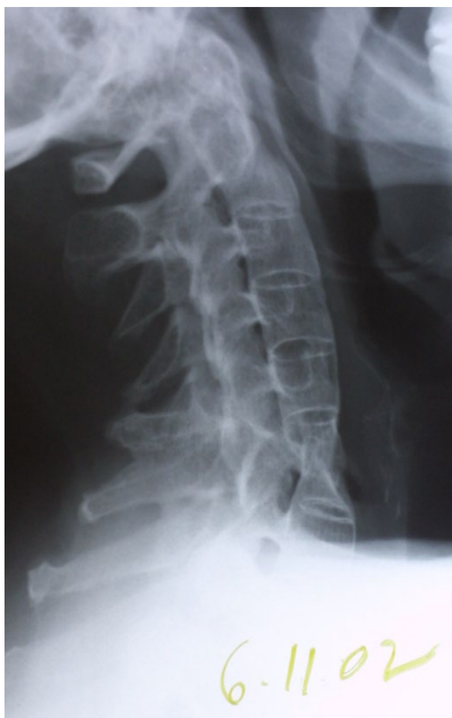

Figure b. Eight years postinjury.

Case Report 2

16 years old; admitted same day of injury in 1991 to the Midland Centre for Spinal Injuries at the RJAH Orthopaedic Hospital in Oswestry having sustained a road traffic accident as a back seat passenger in a car.

She presented with paralysis of the left side of the body, and sensory impairment on the right. Radiologically she had a C4 cervical flexion compression fracture with a left hemi-canal encroachment and left hemi compression of the cord.

Active physiological conservative management: the injured spine together with the multi-system impairment and malfunction was provided. She did not require ventilation or intensive care monitoring. Neurologically she recovered motor power throughout to enable her to ambulate indoors and outdoors without support. Unfortunately, her sphincter functions did not recover and she had residual weakness in the left hand which she uses functionally.

Her neurological condition has not changed and she continues to ambulate 32 years following injury.

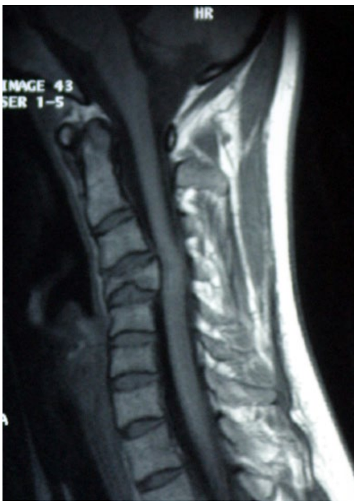

Figure c.

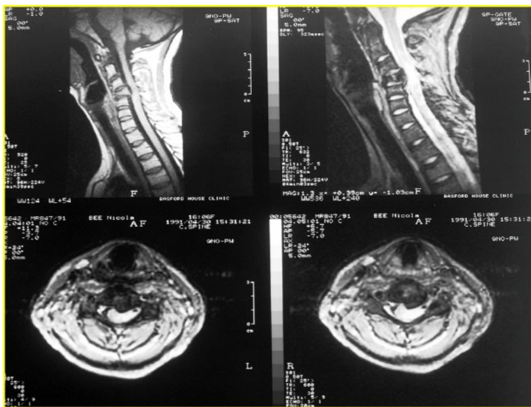

Figure d.

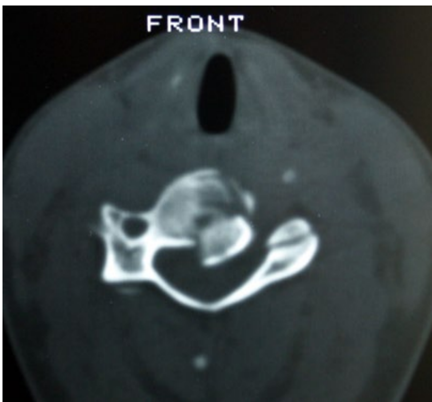

Figure e.

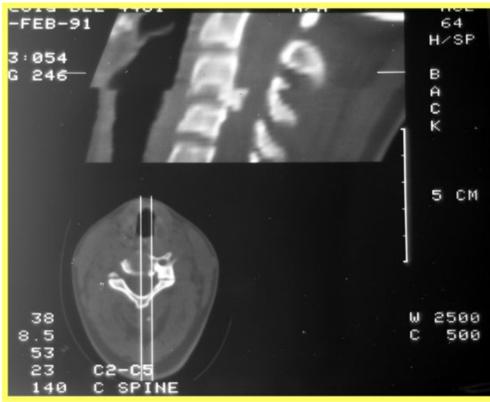

Figure f.

Muscle Chart

R	Movement		L
5	Shoulder	Elevation	5
5		Abduction	0
5		Adduction	0
5	**Elbows**	**Flexion**	1
5		Extension	0
5	Wrists	Flexion	0
5		**Extension**	0
5	Fingers	**Flexion**	0
5		Extension	0
5	Thumbs	Flexion	0
5		Extension	0
5		Abduction	0
5		Adduction	0
5	5th Digit	**Abduction**	0
+	Abdomen	Upper	0
+		Lower	0
5	Hip	**Flexion**	0
5		Extension	0
5		Abduction	0
5		Adduction	0
5	Knee	Flexion	0
5		**Extension**	0
5	Ankles	**Dorsiflexion**	0
5		**Plantarflexion**	0
5	Toes	Flexion	0
5		**Extension**	0
50	**MOTOR SCORE**		1
	ASIA MOTOR SCORE = 51		

Reflex Chart

R	Reflex	L
-	Bicep	-
+	Tricep	-
-	Supinator	-
-	Upper Abdomen	-
-	Lower Abdomen	-
+	Knee	-
+	Ankle	-
u	Plantar	d
+	Anal	+
	Bulbocavernosus	

Figure g.