

TABLE E-1 Characteristics of the Four Patients Described in Case Reports

	Carr et al. ² (1985)	DiFazio et al. ¹⁰ (1991)	Kitajima et al. ¹¹ (2002)	Present Study
History				
Age (years)	24	27	25	35
History and duration of exercise-induced pain	Yes - 2 years	No	Yes - several months	Yes - 10 years
Precipitating activity	Downhill skiing	Downhill skiing	Surfing	Downhill skiing
Duration of precipitating activity	2 days	3 days	1 day	3 days
History of trauma	No	No	No	No
Main complaint	"Gradually developed unrelenting low-back pain"	"Unrelenting low back pain"	"Severe low back pain"	Severe unrelenting low back pain
Initial diagnosis	Acute paraspinal muscle spasm of ? etiology	Acute rhabdomyolysis secondary to exertion	Not stated	Acute rhabdomyolysis of ? etiology
Physical examination				
General appearance	Anxious and in marked distress	Anxious and in severe pain	Not stated	Marked distress
Blood pressure (mmHg)	140/70	135/85	Not stated	130/70
Pulse (beats/minute)	100	72	Not stated	64
Temperature (Celsius)	37.6	37.2	Not stated	37.5
Abdominal examination	Pain on deep palpation; reduced bowel sounds	Diffuse tenderness; reduced bowel sounds	Not stated	Diffuse tenderness; absent bowel sounds
Spinal examination				
Loss of lumbar lordosis	Yes	Not stated	Not stated	Yes
Paraspinal muscle spasm/rigidity	Bilateral; severe	Bilateral	Not stated	Bilateral
Tenderness	Over L3-4	From T12 - L5	Left lumbar paraspinal muscle	Both lumbar paraspinal muscles (R>L)
Sensation	Not stated	Reduced in lumbosacral area only	Reduced in left lumbosacral area only	Reduced in right lumbosacral area only
Straight-leg raise	Exacerbated back pain	Exacerbated back pain	Not stated	No exacerbation of back pain
Investigations (normal values in parentheses)				
Urinalysis	Day 1 normal; later 3+ myoglobin	+ myoglobin	Not stated	3+ myoglobin
Hematocrit (36-52%)	40	43	Not stated	42
White count (4-10 x 10 ⁹ /L)	23	9	8.6	9.8
Amylase (44-128 IU/L)	65	140	39	39
Erythrocyte sedimentation rate (mm/hr)	59	2	Not stated	3
C-reactive Protein (<1 mg/dL)	Not stated	Not stated	0.1	<1
Aspartate aminotransferase/(17-59 IU/L)	365	565	193	804
Alanine aminotransferase/(21-72 IU/L)	315	Not stated	41	141
Bilirubin (0.2-1.3 mg/dL)	Not stated	Not stated	1.1	1.0
Lactate dehydrogenase (313-618 IU/L)	Not stated	Not stated	505	3823
Myoglobin (<116.4 ng/mL)	Not stated	Not stated	Not stated	7961
Creatine kinase (55-170 IU/L)	5465	60,000	21,440	48,550
Cultures (urine and/or blood)	No growth	No growth	Not stated	No growth
Bone scan	Normal	Not performed	Not performed	Not performed
Computerized tomography scan	Marked swelling of paraspinal muscles	Not performed	Not performed	Marked swelling of paraspinal muscles
Magnetic resonance imaging scan	Not performed	Increased signal both lumbar paraspinal muscles	Increased signal in left paraspinal muscle	Increased signal in both lumbar paraspinal muscles
Compartment Pressures (mmHg)	Not performed	Left 80, right 70 (day 3)	Left 4-5, right 14-16 (day 3)	Left 26, right 44 (day 1)
Management	Nonoperative: rest, analgesia and intravenous fluids.	Nonoperative: Rest, intramuscular analgesia and intravenous fluids	Operative: unilateral fasciotomy (day 3)	Operative: bilateral fasciotomy (day 2)
Clinical course	Initial deterioration with ileus. Gradual improvement over next 12 days	Gradual improvement after some days. Discharged day 6	No improvement by day 3 therefore fasciotomy performed. Rapid improvement postop.	No improvement by day 2 therefore fasciotomies performed. Rapid improvement postop.
Status at final review	3 months: normal activity. Intermittent mild to moderate pain.	4 months: normal activity. Slight residual discomfort	2 months: normal activity. No pain	4 months: normal activity. No pain