

A1704
 October 22, 2008
 9:00 AM - 11:00 AM
 Room Hall E2-Area E,

Timing of Early Treatment of Neurological Deficits Post Intervention and Operative Spinal Procedures

A. Aldrete, M.D., R.F. Ghaly, M.D., FACS
 Arachnoiditis Foundation, Inc.; Aldrete Pain Care Center, Inc., Birmingham, Alabama

INTRODUCTION: When prolonged sensory and motor deficits appear after either laminectomies, fusions, neuraxial blocks, or intervencionist procedures to relieve pain, definite diagnosis may be delayed waiting for spontaneous improvement. Currently, Neurology Consults and imaging studies are readily available. An available advisory source has functioned since 2003, for consultations and advice if treating physicians request it.

METHODS: This study was conducted from telephone or e-mail consultations (free of charge) requested by treating physicians (anesthesiologists, neurologists, orthopedic and neurosurgeons) asking for advice about treatment of sudden neurological deficits found post procedure in 61 patients. After procuring data about their patient, a Protocol was suggested as treatment. They were asked to report back the patient's condition at least in 1 week, 1 month post contact and 6 months post event. A multimodal suggested protocol included:

- a) STEROID: Methylprednisolone (MTP) 500mg intravenous (3 hrs infusion) daily x 5[^]
- b) ANTICONVULSANT: (Gabapentin 400mg t.i.d. or Lyrica 75mg t.i.d) for 3 weeks
- c) TRICYCLIC ANTIDEPRESSANT: (Amitriptyline 25mg b.i.d.) for 3 weeks
- d) Alpha-2 AGONIST: Clonidine 0.1 mg b.i.d or a 7day patch 0.1mg for 3 weeks
- e) ISOMETRIC EXERCISES: 400/day. They were cautioned about further spinal interventions, unless hematoma or abscess were confirmed. Changes in pain level, sphincter dysfunction, sensory and motor loss and physical function were recorded.

([^]) was repeated x 3 days if symptoms reappeared.

RESULTS: The results reported by the treating physicians are displayed in Table 1.[table1]Other cases (21) with confirmed CSF leaks, pseudomeningoceles, disc fragments in vertebral canal, root injury (drop foot) or misplacement of hardware were excluded.

CONCLUSIONS: Preliminary data suggests that the sooner the treatment protocol was initiated, the better outcomes were noted for neurological improvement. After 90 days post event, improvement was meager, confirming our earlier clinical and experimental observations^{1,2}. Only four patients with bladder dysfunction and 7 with sensory loss improved even when treatment was given four months post-event. When neurological deficits appear post-spinal interventions or operations, emergency neurological consult + MRI confirmation and prompt treatment is suggested. If MRI is not feasible, the decision to initiate treatment would have to be done according to the individual patient risk/benefit ratio.

1. Aldrete JA: Acta Anaesthesiol Scand 2003;43:2-12.
 2. Romero-Figueroa S, Aldrete JA, Martinez A et al: J Periph Nervous System 2007;11:1-8.

Anesthesiology 2008; 109 A1704

Treated within	Results reported by treating physicians post event					
	1 month	2 months	3 months	4 months	5 months	6 months
Symptoms improved	12/12	10/10	6/8	3/9	4/13	2/9
Pain subsided	11/12	9/10	4/8	2/9	1/13	1/9
Pain Reduced	1/12	2/10	5/8	2/9	1/13	1/9
Numbness gone	11/12	10/10	7/8	4/9	2/13	1/9
Weakness gone	10/12	8/10	5/8	2/9	1/13	0/9

Sphincter dysfunction	11/12	9/10	5/8	3/9	1/13	0/9
Return physical function	12/12	10/10	7/8	4/9	0/13	0/9

Our Mission: The American Society of Anesthesiologists is an educational, research and scientific association of physicians organized to raise and maintain the standards of the medical practice of ANESTHESIOLOGY and improve the care of the patient. Since its founding in 1905, the Society's achievements have made it an important voice in American Medicine and the foremost advocate for all patients who require anesthesia or relief from pain.