

## Match Overview



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"5th Annual Meeting of the Spine Society of Europe, September 30 - October 4, 2003, Prague - Czech Republic", Euro

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Name of journal: World Journal of Anesthesiology

ESPS Manuscript NO: 16495

Columns: Case Report

**Bradycardia and hypotension during pediatric scoliosis surgery-hypovolemia or spinal shock?**

Cengiz Karsli, Samuel Strantzas, Olivia Finnerty, Laura Holmes, Stephen Lewis

**Abstract**

We present the case of a 13 year old boy undergoing scoliosis repair utilizing skull-femoral traction who developed sudden, sustained bradycardia and hypotension during scoliosis repair, associated with loss of somatosensory (SEP) and motor evoked potentials (MEP) to all four limbs. A diagnosis of spinal shock and hypovolemia was made after ruling out primary cardiac causes, sepsis, anaphylaxis and intra-spinal pedicle screw placement. Acute complications of surgical scoliosis repair are reviewed along with anatomy of the sympathetic nervous system. In this case spinal shock may have been due to hypovolemia as well as spinal cord manipulation during T12 vertebral column resection that was needed to effect scoliosis correction. Treatment included volume expansion and inotropic support. Anesthesiologists caring for these patients should be mindful of the possibility of spinal shock during correction of severe scoliosis, particularly when vertebral column resection is undertaken.

**Key words:** Spinal shock; Scoliosis; Hemorrhagic shock; Vertebral; Sympathectomy.



Bradycardia and hypotension during pediatric scoliosis surgery-hypovol



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2015年3月22日 - ... Pediatric Spine; Pediatric Cervical Spine; Pediatric Cervical Trauma ... Neuromuscular Scoliosis - Cerebral Palsy - Spinal Disorders ... characterized by hypotension & relative bradycardia in patient with ... Spinal Shock, Neurogenic Shock, Hypovolemic Shock ... surgical decompression and stabilization.

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Orthopaedic surgery is well suited to neuraxial and peripheral regional anesthetic techniques. .... During spinal shock, there is loss of sympathetic vascular tone below the injury. .... Scoliosis is a deformity of the spine resulting in lateral curvature and rotation of ..... This effect results in bradycardia, hypotension, and syncope.

### SPINAL CORD- INJURY AND PROCEDURES - neuroicu.info

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Surgical treatment for SCI is aimed at immobilization, medical stabilization, spinal .... Neurogenic shock is manifest by hypotension, bradycardia, and hypothermia. ... Hypovolemia from coexisting hemorrhagic shock in patients who also have spinal ..... Scoliosis most frequently involves the thoracic and lumbar regions.

### Neurogenic Shock | Emergency Medicine

<https://emergencymed.wordpress.com/2009/.../neurogenic-shoc...> 翻译此页

2009年3月11日 - Sympathetic outflow is disrupted resulting in unopposed vagal tone. ... Tags: bradycardia, hypotension, injury, Neurogenic shock, spinal cord ... Neurogenic shock must be differentiated from other types of shock, particularly hypovolemic. ... Trauma surgery, neurosurgery, and orthopedic consultation should ... 缺少字词: scoliosis

### Cardiac dysfunctions following spinal cord injury

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2009年4月25日 - In neurogenic shock, hypotension is associated with bradycardia, while

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Advances in scoliosis surgery have now made it possible for younger .... developing massive blood loss and hemodynamic signs of hypovolemia. .... atropine for bradycardia (seven patients) or vasopressors for hypotension (three patients).

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Surgical procedures involving bone, muscle, and related soft tissues require .... If the cardioaccelerator fibers (T1 through T4) are damaged, bradycardia results. .... Scoliosis is a deformity of the spine resulting in lateral curvature and rotation of the ..... Unexplained hypotension or signs of hypovolemia without obvious blood ...

### [\[PDF\] Anesthetic implications for surgical correction of scoliosis](#)

[https://www.aana.com/newsandjournal/.../scoliosis277-285.pd...](#) ▾ [翻译此页](#)

作者: MA Gambrall - 2007 - 被引用次数: 12 - [相关文章](#)

... in patients with scoliosis, the need for induced hypotension, large sur- ..... fusion requirements in pediatric and adolescent scoliosis- ... volemia or hypervolemia.

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