A pediatric case series on the use cervical ganglion blocks for the treatment of pain related to acute cervical spinal injuries

Charles I Yang MD, Catherine Campese NP, Rachael Lauer NP, Ayse F Genc MD, Angela M Garcia MD
University of Pittsburgh School of Medicine, Children’s Hospital of Pittsburgh of UPMC

Introduction:
Pain related to acute cervical spinal injuries can be very severe leading to suffering and dysfunction by interfering with rehabilitation therapy. Cervical ganglion block is an established technique that has been utilized to treat localized pain conditions. We report on three pediatric patients with acute cervical spinal injuries complicated with debilitating pain successfully treated with cervical ganglion blocks. The use of this technique has not been previously reported for this condition and population.

Case 1
17 year old male football player tackled with resulting cervical flexion injury leading to loss of consciousness and temporary experience of right sided paralysis was life-flighted to the hospital. His evaluation included normal MRI, MRA, CT of the head, cervical and thoracic spine. He experienced severe right sided pain of 10/10, allodynia and hyperalgesia which prevented him from participating in PT and OT. On hospital day 10, he underwent an ultrasound guided right cervical ganglion block with 0.5% Ropivacaine. He had complete resolution of his pain, continued to have weakness, but was now able to participate fully with PT and OT leading to eventual full recovery.

Case 2
19 year old male, s/p MVA with TBI and cervical fracture with right C4-C7 nerve root avulsion, paraplegia, tracheostomy with ventilator dependency evaluated three month following initial trauma for severe right shoulder pain interfering with his PT and OT. He experienced severe right sided pain of 10/10, allodynia and hyperalgesia which prevented him from participating in PT and OT. On hospital day 10, he underwent an ultrasound guided right cervical ganglion block with 0.5% Ropivacaine. He had complete resolution of his pain, continued to have weakness, but was now able to participate fully with PT and OT leading to eventual full recovery.

Case 3
13 year old female with cervical spine injury after being bucked on a horse without falling presented to the hospital with left sided sensory and motor loss. MRI of cervical and thoracic spine was normal except for some possible ligamentous injury at T5-T6. She reported severe cervicalgia 9/10 with paresthesia and weakness in the left upper and lower extremities. She was unable to participate in PT secondary to pain. On hospital day 4, she underwent an ultrasound guided left cervical ganglion block with 0.5% Ropivacaine. She had complete resolution of pain and weakness after the block, but continued with paresthesia. The day following the block she was discharged home. The paresthesia resolved over the next few months.

Conclusion
The use of cervical ganglion blocks for treatment of pain related to acute cervical spinal injuries in the pediatric population has not been previously reported. In the three cases of acute cervical spinal injuries, the technique proved to be useful in alleviating pain and facilitating recovery.

REFERENCES