Placement of baclofen pump catheter through C1-C2 Puncture: technical note

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Introduction

• Intrathecal baclofen has been suggested as an effective and safe treatment for intractable spasticity and dystonia. Techniques of lumbar and intraventricular catheter placement have been previously described. The purpose of this study was to describe a technique to implant catheters for intrathecal baclofen infusion through C1-C2 puncture.
Methods

Four out of five consecutive patients successfully underwent placement of catheters for intrathecal baclofen.
Results

- There were no instances of infection, cerebrospinal fluid leak, or catheter migration in follow-up; furthermore, there were no occurrences of vertebral artery or spinal cord injury. All patients had an effective stabilization or reduction of their UE, LE, or trunk tone. There were no cases of worsening hypertonia.
Discussion

• Theoretical benefits of intrathecal catheters placed at C1–2 include decreased risk of CSF leak, decreased infection, and decreased risk of iatrogenic injury of the catheter during spine surgery.

• Reported risks of this technique have a reported low incidence but include vertebral artery injury or spinal cord injury
Summary

• Our preliminary experience with C1-C2 puncture for placement of the intrathecal baclofen catheter seems to indicate that this is a safe and efficacious technique. Lessons learned from the failed attempt at C1-C2 puncture will be delineated.