



# An Alternative to Catheter Replacement for the Management of an Intrathecal Catheter Tip: A Case Report

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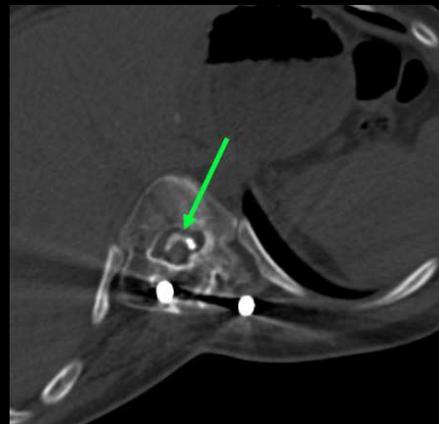
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## CASE DESCRIPTION

➤ A 17-year-old male with spastic tetraplegic cerebral palsy had been satisfactorily managed with an intrathecal baclofen pump for many years but presented with an increase in lower extremity spasticity. Additional oral medications were tried. Pump troubleshooting was completed including a successful catheter access port aspiration. A contrasted catheter CT scan showed an intradural catheter tip with no meniscal layering of contrast in the posterior intrathecal space. A catheter replacement was recommended but the family was concerned about the duration of anesthesia due to his history of posterior spinal fusion. Therefore, an alternative approach was performed with repositioning of the catheter via retraction of the spinal segment. A repeat contrasted catheter CT scan showed contrast distributed in a meniscal pattern, indicating that the catheter tip had repositioned correctly into the intrathecal space. Post-operatively, his symptoms improved and spasticity once again was well controlled. His additional oral medications were successfully weaned.

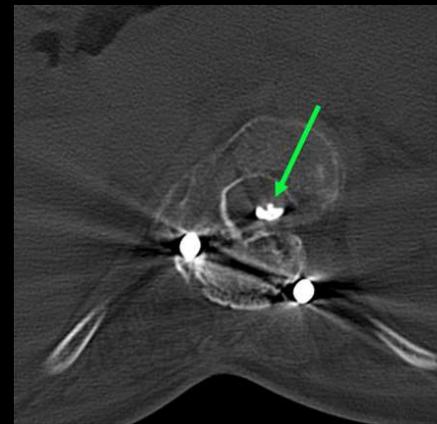
## DISCUSSION

- The catheter tip of an intrathecal drug delivery system can migrate from the intrathecal space and become displaced in the space between the arachnoid and dura mater.
- An intradural catheter results in variable drug delivery which can lead to under- or over-dosing.
- The typical intervention recommended to correct an intradural catheter tip location is catheter replacement.
- The purpose of this case report is to present an alternative management option for these mal-positioned catheters.



**FIGURE 1**

The contrasted catheter CT scan showing an intradural catheter tip without meniscal layering of contrast in the posterior intrathecal space.



**FIGURE 2**

The post-procedure contrasted catheter CT scan showing contrast distributed in a meniscal pattern, indicating the catheter tip in the subarachnoid space.

## CONCLUSIONS

➤ Intrathecal pump catheter malfunctions can be difficult to manage. In patients who have undergone posterior spinal fusion, catheter replacements can be technically challenging. This case demonstrates the potential for success in repositioning catheter tip location by retracting the catheter such that it repositions properly into the intrathecal space. This intervention could help to prevent catheter replacements in certain patients found to have an intradural catheter tip.

## REFERENCES

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