

Poster presentation

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Temporary subcutaneous peritoneal shunts for the treatment of cerebrospinal fluid fistulas following operations on the spine for congenital anomalies

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Background

To treat cerebrospinal fluid (CSF) fistulas which occur following operations of the spine for congenital anomalies with a temporary subcutaneous peritoneal shunt.

Materials and methods

Sixteen patients who acquired cerebrospinal (CSF) fistula following spinal congenital repair procedures (9 lipomeningoceles, 3 tethered cords post myelomeningocele repair, 2 myelocystoceles, 1 arachnoid cyst, and 1 postoperative scoliosis surgery) underwent placement of a subcutaneous-peritoneal shunt (Range: 7–510 postoperative days).

Results

The CSF fistulas were resolved in all. Two patients required revisions of the shunt prior to resolving the fistula and subsequent shunt removal. Three patients acquired a lumbar wound/shunt infection, which necessitated shunt removal. Subsequent to removal, the infection resolved and there was no recurrence of the CSF leak. All patients but two had their shunts completely removed within one year of placement (Range: 2–21 months, Mean: 8.7 ± 5.0 months SD). Two patients did not have their shunts removed due to parental decision for no further surgery.

Conclusion

We conclude that spinal postoperative subcutaneous CSF fistulas may be successfully treated with temporary subcutaneous peritoneal shunts. This reduces hospital stay and more extensive or multiple surgical interventions.