

Poster presentation

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Distal obstruction in shunted children after bladder perforation

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Background

The commonest reason for shunt dysfunction is proximal or distal obstruction due to short or disconnected catheters. Infection with an abdominal cyst can also give a distal obstruction.

Materials and methods

Between 1998 and 2003 five children (7–16 years) were operated for bladder perforation. One of the children was augmented with ileum, three with colon and one underwent detrusor myectomy.

Results

Two children had a laparotomy due to bladder perforation with urine in the abdominal cavity. Two–five days later they developed headache, lethargy and signs of high intracranial pressure. The distal catheters were externalised for 1–5 weeks before successful replacement into the abdominal cavity. The third child perforated during a renography and two days developed signs of shunt-dysfunction. The distal catheter was externalised and later the shunt was converted to a ventricular-atrial system. The fourth patient had an iatrogenic lesion of the bladder with urine leakage during abdominal surgery. Ten days later there were signs of distal obstruction and after externalisation, the shunt was converted to an atrial system. The fifth patient had a neonatal perforation and after augmentation several episodes with abdominal pain believed to be due to local abscesses. There were signs of shunt-dysfunction on one occasion, thus the distal catheter was externalised and later replaced into the abdominal cavity. During a later episode a bladder perforation to a localised cavity was found at laparotomy.

Conclusion

Ventriculo-peritoneal shunted children with bladder perforation and urine free in the abdominal cavity can develop distal obstruction due to a temporary resorption difficulty of CSF. Careful observations of signs of shunt dysfunction are therefore recommended. Following externalisation of the distal catheter it is possible to replace it into the abdominal cavity.