

SUPRAPUBIC CATHETER INSERTION IN NEUROGENIC BLADDERS USING AN ADAPTED (HEY GROVES) URETHRAL SOUND – EXPERIENCE FROM A TERTIARY REFERRAL CENTRE

Hypothesis / aims of study

At our institute (serving spinally injured / neurological patients) the retrograde Hey Groves sound (HGS) is used for placement of SPCs in bladders that cannot be distended / palpated. The recently published BAUS suprapubic catheter (SPC) practice guidelines [1] state “all closed (abdominal puncture) techniques run the risk of injury to intra-abdominal organs”. It is difficult to quantify this risk for particular closed techniques due to a paucity of published data. Indeed to our knowledge there is no published series evaluating the use of the HGS for placement of a suprapubic catheter. We wanted to try and evaluate how safe this practice is?

Study design, materials and methods

34 patients required elective closed insertion of SPC using a HGS between September 2007 and August 2010 as identified from theatre records. In the same period 125 patients underwent closed insertion of SPC using a Lawrence Add-a-Cath. A non-comparative retrospective case note analysis was undertaken.

Results

The underlying neurological disorder for the 34 patients undergoing SPC insertion with a HGS was as follows: Spinal Injury = 21, cerebral palsy = 6, multiple sclerosis = 4, Spina Bifida = 3. Patients had undergone prior abdominal surgery leaving a lower midline scar in 6 cases. The reasons for using a HGS were failure of bladder distension due to a thick bladder wall (5) or urethral leakage (13), impalpable bladder due to patient habitus (7) and not documented (9). No patient in either technique sustained a visceral injury and all underwent a successful first catheter change.

Interpretation of results

Due to the very low rate of suprapubic catheter complications (0.15% – 2.5%¹) and how relatively infrequently the HGS is required, this study was not designed to test if the HGS had a statistically higher complication rate. However this analysis (of the highest number of HGS SPC insertions reported) has shown that our group of patients undergoing SPC insertion did not have any complications.

Concluding message

For experienced surgeons the HGS is a safe and effective means of catheterising bladders that cannot be distended / palpated. The alternative to a HGS maybe a potentially more morbid open SPC insertion.

References

- Harrison, S. C., Lawrence, W. T., Morley, R., Pearce, I. and Taylor, J. (2011), British Association of Urological Surgeons' suprapubic catheter practice guidelines. *BJU International*, 107: 77–85. doi: 10.1111/j.1464-410X.2010.09762.x

| | |
|---|---|
| Specify source of funding or grant | None |
| Is this a clinical trial? | No |
| What were the subjects in the study? | HUMAN |
| Was this study approved by an ethics committee? | No |
| This study did not require ethics committee approval because | A retrospective analysis of existing practice - no aspect of patient care was altered |
| Was the Declaration of Helsinki followed? | Yes |
| Was informed consent obtained from the patients? | No |

