Retroperitoneoscopic Resection of Retroperitoneal Mass

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Background

Retroperitoneoscopic Surgery
minimal invasive surgery for retroperitoneal organs
developed during last decade

Retroperitoneoscopy vs. Laparoscopy
preferred tool for the cases of retroperitoneal pathology
advantage of direct route without passage through the abdominal cavity
vs. transperitoneal route of wider and more familiar peritoneal chamber

Purpose

report of a case of a retroperitoneoscopically removed
retroperitoneal mass in 7–year–old girl who has V–P shung d/t
hydrocephalus
Case Presentation

7-year-old girl
(19kg : 3 percentile, 123 cm : 25–50 percentile)

an incidentally found retroperitoneal mass

History
choroid plexus papilloma with hydrocephalus received a few times of operation for V–P shunts due to uncontrolled hydrocephalus and malfunction of V–P shunt catheter 7 years ago
Preop. Abd. CT

Preop. Brain CT

well defined mass of 6 x 5 cm in size in right retroperitoneal space
Preop. Abd. U/S

- well-defined hypoechoic mass
- compression of Rt. kidney and vessel by the mass
- multiple bright echo inside the mass: r/o calcification

IMP: R/O neurogenic tumor, retroperitoneum

Preop. PET
retroperitoneal approach vs. transperitoneal approach

1) possible intraperitoneal adhesion due to previous V–P shunt operations

2) benign character of the retroperitoneal lesion on imaging studies such as ultrasonogram, CT scan, and PET scan

3) disturbance of V–P shunt function with transperitoneal approach

4) no need for restriction of postop. oral intake with retroperitoneal approach
Retroperitoneoscopic resection

Lt. lateral position with flexion of Lt. flank

post. wound extension for mass removal
no drainage inserted
total operating time : 420 minutes

ovoid solid pinkish yellow mass, measuring 5x3.5x4cm
pathologic diagnosis was ganglioneuroma
Abd. CT f/u on POD #5
Conclusion

I. Retroperitoneoscopic resection of retroperitoneal mass is an acceptable procedure in pediatrics.

II. Retroperitoneal approach for the retroperitoneal lesions is more feasible with its direct route than transperitoneal approach, especially for previous intraabdominal surgery.

III. Resection of benign retroperitoneal pathology may be performed easily in good result with full awareness of retroperitoneal anatomy.