# AN ABDOMINAL CEREBROSPINAL FLUID PSEUDOCYST WITH HYDRONEPHROSIS POST VENTRICULOPERITONEAL SHUNT

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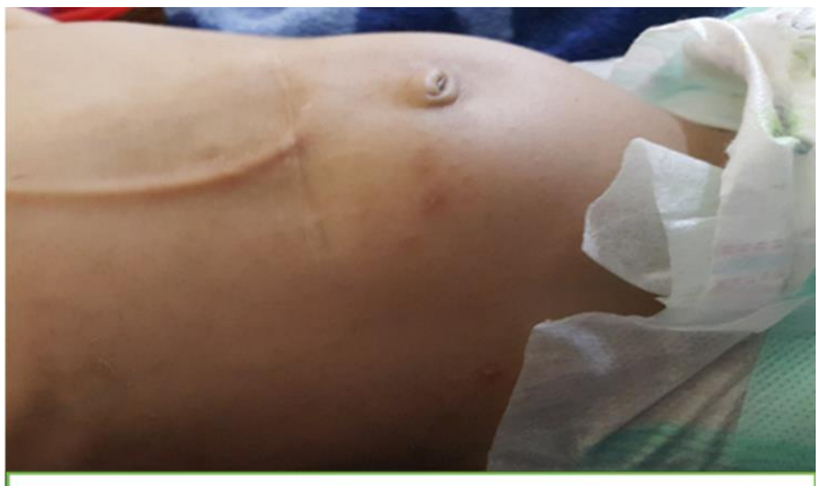
**Ethics Statement : meets the criteria for exemption from MSF Ethics Review board review , exemption granted by OCA Medical Director. Written informed consent to share this case was obtained from parent(s).**

## BACKGROUND AND AIMS :

**ACP (abdominal cerebrospinal fluid pseudocyst) is an accumulation of CSF (cerebrospinal fluid) at the distal end tip of the VPS (ventriculoperitoneal shunt) within the abdominal cavity. It is a rare complication of VPS with an incidence range 0.33% to 6.8%. This case report aimed to highlight a new presentation of ACP and how Point-of-Care Ultrasound (POCUS) aids in early diagnosis of ACP and its complications.**

## CASE DESCRIPTION :

**A one-year-and-five-month-old girl had a VP shunt placed for hydrocephalus when she was three months old. She had progressive suprapubic swelling for one month. Her parents sought medical attention when she began developing difficulty in urination and fever; so she was brought to ER of MCH. She had fatigue, poor feeding, nausea, vomiting, and she could pass flatus. Physical examination revealed she had fair general condition, lethargic, and no neurological changes were observed. Abdominal examination revealed a previous scar from VPS reposition surgery, a markedly tender large lump at the lower abdomen as in figure (1) and hypoactive bowel sounds. She had bilateral lower limb pitting oedema.**



* Figure (1) Huge Suprapubic abdominal distension and the tube of VPS in subcutaneous tissue of abdomen wall.

**A large cyst with septations, the distal end of the VPS catheter was noted inside it as shown in figure (2), severe hydronephrosis in both kidneys and empty bladder with a balloon of urine inside it as shown in figure (3) all were revealed by POCUS.**

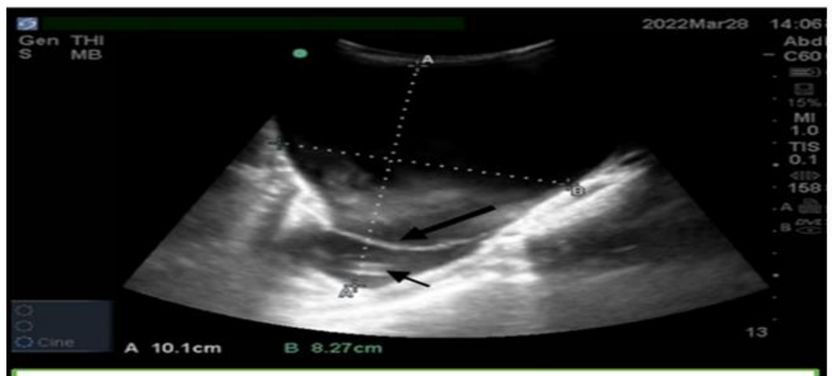



Figure 2. pocus image for pelvic region that's revealed a large anechoic cystic structure (ACP) measuring 10.1cmx8.27cm with septation (long arrow) and the distal tip of VPS catheter appeared in lower part inside the cyst (short arrow).

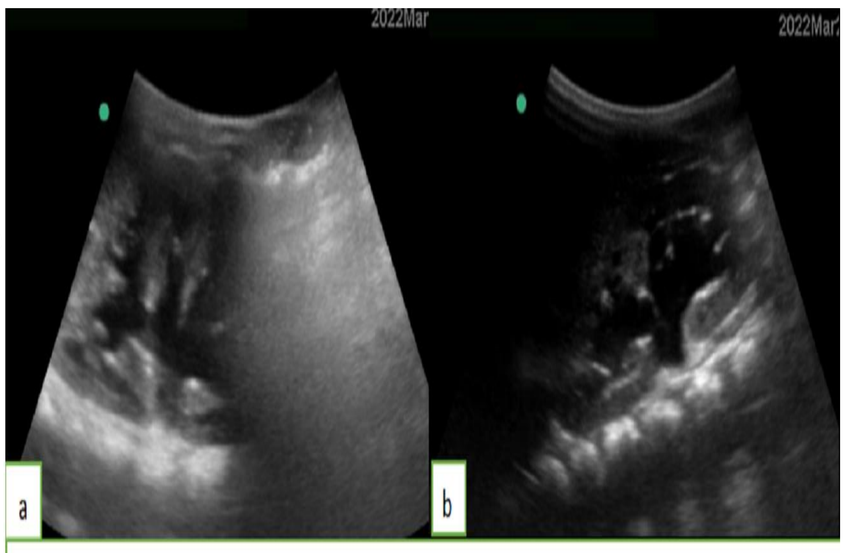



Figure 3, a. pocus image showing the left kidney with Grade III hydronephrosis (renal pelvis and minor calyces are diffusely dilated). b, the Right kidney showing the same findings.

**Abdominal pelvic CT confirmed the diagnosis of ACP with bilateral severe hydronephrosis. It showed a large central peritoneal cyst measuring 9x8cm with a VPS tube within the cyst compressing both ureters. ACP CSF analysis revealed infected CSF. For urgent treatment intervention, she was referred to highly-specialised neurosurgical and general surgical centre.**

## CONCLUSION :

- ✓ **Physicians should be aware of abdominal complications of VP shunts, such as ACP and detection of its complications.**
- ✓ **POCUS is a fast, low-cost, non-invasive test and it is a very important emergency tool in assessment of similar conditions .**

## REFERENCES: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