An Unusual Case of Urocolpos

*1*Dr. Prem Gowtham.E, 2Dr. Kalaichezhian.M, 3Dr.Ravindran.C

1Post Graduate Resident, Department of Radiodiagnosis, SreeBalaji Medical College and Hospital, Chromepet, Chennai.

2Assistant Professor, Department of Radiodiagnosis, SreeBalaji Medical College and Hospital, Chromepet, Chennai.

3Professor, Department of Radiodiagnosis, SreeBalaji Medical College and Hospital, Chromepet, Chennai.

Corresponding author: *Dr. Prem Gowtham.E

I. Introduction

Clinical History

A 34-year-old obese female referred to radiology department with a history of urinary incontinence for the past 5 years. No history of pain. Previously the patient had normal bladder continence. No other related significant medical history was present.

Imaging Findings

On ultrasound a large amount of fluid collection measuring ~ 9.9 x 4.3 x 5.3(120 cc) noted within the vaginal cavity / posterior to the urinary bladder. Uterus and ovaries were normal. Post void residue shows nil significant fluid collection within. Provisional diagnosis of urocolpos was made out. Hence patient was further referred for CECT KUB.

On CECT KUB, The collection measured ~9.9 x 4.3 x 5.3 cm. On post contrast Urogram images, the collection seen completely filled with excreted contrast material, with same density as that of the bladder. There is no communication between the bladder. There is no communication between the ureter and collection. There was no evidence of bladder diverticulum, ectopic ureter drainage. Disappearance of the vaginal collection on post void images prompted a diagnosis of urocolpos due to vesicovaginal reflux, rather than an obstructive cause.
II. Discussion

Urocolpos (uro-urine, Colpos-vagina) is a rare entity. It is defined as distension of vagina due to accumulation of urine. It is seen from young girls to women. Obstructive urocolpos can be due to vaginal obstruction like imperforate hymen or vaginal agenesis or septum. Non obstructive causes may include leak of amniotic fluid in pregnant patients, misplaced bladder catheter and abnormal accumulation of urine [1]. Reflux of urine into vaginal vault during voiding represents vesicovaginal reflux. Exact causes are not known. The main cause are adhesions of labia minora, obesity which causes significant labial apposition, abnormal meatal positioning (congenital female hypospadias) and other causes such as functional cause are like cerebral palsy, spastic pelvic floor muscles [2, 3, 4]. Urinary incontinence, urinary tract infections and abnormal vaginal discharge are the common causes of vesicovaginal reflux [5]. Computerized Tomography is done to rule out bladder diverticulum, ectopic ureter drainage and vesicovaginal fistula. As the collection disappeared on post voiding a diagnosis of urocolpos is more likely. Cross section modality such as US, CT and MRI with post void examination would be useful to rule out other possibilities. Other investigation such as voiding cystourethrography helps in demonstrating active reflux when viewed under fluoroscopy [4]. Treatment may include behavioral modification like self/parent awakening systems, daytime rehearsals, positive reinforcement systems and bed wetting alarms. Disappearance of vaginal collection of any size following micturition, in the absence of other structural abnormalities nearly always clinches the diagnosis non-obstructive urocolpos.

Final Diagnosis

Urocolpos