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ANTERIOR SACRAL MENINGOCELE PRESUMED AS HYDROSALPHINX: A RARE CLINICAL PRESENTATION .

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ABSTRACT Anterior sacral meningocele is characterized by herniation of the meningeal sac due to a developmental bone defect in the front of a sacrum bone. It is usually discovered during a rectal or pelvic examination as a cystic lesion or discovered incidentally. Most of the symptoms are due to compression on the adjacent organs these include lower back and pelvic pain, constipation, difficulties in defecation, dysmenorrhea and dyspareunia, and urinary incontinence, retention or urgency. In this paper, we present a case of an unmarried 25 year old female patient who had bilateral hydrosalphinx during a routine ultrasound examination. Detailed radiological workup of the patient revealed it to be ventral sacral meningocoele.

KEYWORDS : anterior sacral meningocoele , hydrosalphinx ,rare case, CT .

INTRODUCTION: . Anterior sacral meningocoele was first described in 1837 by by LANCET BYRANT. Fewer than 300 cases have been reported . The sacral meningocele may be congenital or acquired and rare in comparison to its dorsal counter. Most commonly, however, ASMs present during the first and second decades of life with progressive constipation or other symptoms referable to the colorectal, genitourinary, and reproductive systems. Dysmenorrhea may be secondary to compression of retropelvic veins resulting in pelvic venous congestion.

This case emphasizes that anterior sacral meningocele should be considered in the differential diagnosis of cases of hydrosalphinx in unmarried females. Because severe neurologic complications or even death may occur without proper preoperative planning in such cases, MR imaging should always be performed for evaluation and characterization and a definite diagnosis should be made.

CASE REPORT:

A 25 -year old female came to Gynecology OPD at MYH hospital Indore with the complaints of dysmenorrhea and constipation .Patient had history of chronic osteomyelitis in childhood for which saucerisation was done multiple times and finally prosthesis placed in right thigh when she was 20 yrs. Per abdomen examination did not reveal anything significant. Per vaginal examination could not be done as the patient was unmarried. Though rectal examination revealed a loaded colon, rectal sphincter tone was found to be normal There were no focal neurological deficits.. Routine blood biochemical tests were within normal limits. Pelvic US at the hospital showed "thick walled anechoic tubular structure in bilateral adnexa suggestive of bilateral hydrosalphinx".

As MRI was contraindicated due to metallic prosthesis CT(computerised tomography) was performed for characterization of hydrosalphinx as the presumed diagnosis of bilateral hydrosalphinx was unlikely. CT findings revealed "fluid density cystic lesions noted in the presacral region measuring 4.2 (transverse)*2.3(anteroposterior) on left side and 3.8(transverse) *3 cm (anteroposterior) with intraspinal communication . A connection between the pelvic cystic lesion and the spinal thecal sac – typical of a sacral meningocoele was clearly observed on CT images. The cystic fluid was similar to cerebrospinal fluid (CSF) signal intensity. There were neither nerve roots nor solid components within the mass. No contrast enhancement was detected. Uterus and adnexa were separate the mass. A diagnosis of ASM was established based on the findings. The patient was informed about surgical management.

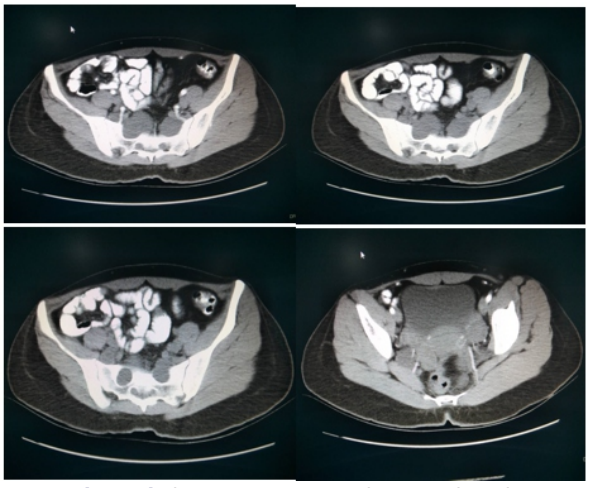

Fig 1 (a) (b) (c) (d) showing A connection between the pelvic cystic lesion and the spinal thecal sac – typical of a sacral meningocoele . NO nerve roots or solid components within the mass seen . No contrast enhancement was detected.

Discussion: ASM is a uni- or multilocular extension of the meninges from the sacral spinal canal to the retroperitoneal presacral space, through sacral bony defects or through the anterior sacral foramina1. Its incidence is rare; ASM is usually single and anterolateral—bilateral ASM appears to be rare Most congenital ASMs appear to occur sporadically, although familial and X-linked dominant inheritance have been reported.The seemingly greater incidence in females is a manifestation of the tendency toward symptomatology in the presence of sacral crowding, as well as the greater likelihood that female patients in the second and third decades of life will undergo palpation of the presacral space during routine physical examination. When cases in patients under 20 years of age are considered, the female-to-male ratio is approximately 1:1. In contrast to dorsal meningoceles that arise from failure of the posterior neuropore to close or dehiscence of a formed neural tube, a congenital ASM arises after failure of one or more sacral sclerotomes to develop. The meningeal sac expands through the sacral defect driven by cerebrospinal fluid (CSF) pulsations. The sacral defect enlarges only slightly, while the developing pelvic viscera offer less resistance to the budding meningocele. The sac

enlarges tremendously in the presacral space, remaining attached to the thecal sac by a smaller pedicle. Although spontaneous regression of the meningocele does not occur after birth, progressive enlargement may occur and is associated with the development of symptoms. The large volume attained by some meningoceles causes crowding of the pelvic viscera.11 The ventral sacral defect is usually parasagittal, less commonly midline or lateral. From a Gynecological perspective, on palpation ASM can mimic an ovarian cyst or other adnexal cystic mass, but the ASM will be located more posteriorly. The gynecologist must treat discovery of these masses with great suspicion to reach the correct diagnosis before surgical exploration. Diagnosis may be made at the time of surgery because of the retroperitoneal location of the ASM. From the obstetric viewpoint, ASM can present a mechanical obstacle to delivery. The most critical risk is rupture of the ASM during labor and delivery, which could lead to infection with a high likelihood of materno-fetal mortality targeted fetal sonographic examination should be used for screening major anomalies, but in cases with a family history of ASM, MRI should be used to search for ASM,. Anterior sacral meningocele does not regress. Therefore, symptomatic ASM requires surgical intervention for the patient's comfort and safety. Opinions on management diverge according to different authors in cases of asymptomatic ASM. Some authors recommend surgery in all cases to avoid infectious complications, and different surgical techniques have been described to this end. Others recommend conservative management, suggesting surgical intervention only in the case of symptoms or increase in size of the lesion due to heightened hydrostatic pressure.

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