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Tarlov Cyst Mimicking Large Symptomatic Ovarian Cyst: A Case Report

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Abstract: ***Introduction: Tarlov cyst is usually formed between endoneurium and perineurium, and their lining contains nerve fibers or ganglion cells. Large symptomatic cysts are considered rare. This case is reported due to its unique presentation in which the Tarlov cyst presented in a pregnant patient and was asymptomatic despite its large size. Case: A 28 year old primigravida was suspected to have an ovarian cyst after a baseline antenatal early ultrasound scan She was managed conservatively as she was asymptomatic. She started to have lower abdominal pain at 17 weeks of POA. The gynaecologist advised for laparotomy and cystectomy. Intra operatively the cyst appeared to arise from retroperitoneal space. Diagnostic aspiration was done. MRI done post operatively that showed a huge cystic lesion, measuring 8.3 cm x 9.1cm x 10cm and associated with another lobulated multiseptated cystic lesion in the spinal canal at L5 vertebra and sacrum. Patient remained asymptomatic and was planned for elective C section with a repeat MRI post delivery. Discussion: The common symptoms are pain in the lower back, coccyx, lower extremities or groin. Other symptoms can be hypesthesia or paresthesia over buttocks, between legs and lower body with bladder incontinence with lower body weakness and impotence. Giant Tarlov cyst is when the diameter is more than 3cm and it is exceedingly rare with about only 10 cases reported so far. The best way to assess and diagnose Tarlov cyst is by MRI. It has the highest diagnostic value because there will be no bony interference and enhanced resolution of tissue density. Management can be surgical or non surgical. Conclusion: Tarlov cyst is a rare occurrence and can be symptomatic if the size is large. Surgical treatment will resolve symptoms with low rate of recurrence. There are many surgical treatments available however non is proven superior to the other. Despite its rare nature, Tarlov cyst should be considered and diagnosed promptly.***

Keywords: Tarlov cyst, large, assymptomatic, non surgical management, MRI, pregnancy

1. Introduction

Tarlov cysts were first described by I.M Tarlov in 1938 during autopsy study of filum terminale. Tarlov cyst is usually formed between endoneurium and perineurium, and their lining contains nerve fibers or ganglion cells[1]. It has been estimated that less than 1% of people have Tarlov cyst and about 13% of it are symptomatic[2]. Large symptomatic cysts are considered rare. This case is reported due to its unique presentation in which the Tarlov cyst presented in a pregnant patient and was asymptomatic despite its large size.

2. Case

A 28 year old primigravida was suspected to have an ovarian cyst after a baseline antenatal early ultrasound scan she was managed conservatively as she was asymptomatic. However, she started to have lower abdominal pain at 17 weeks of POA. Routine USG assessment also showed increasing size of the cyst. The Gynaecologist advised for laparotomy and cystectomy as she was symptomatic. Intra operatively both ovaries were noted to be normal. The cyst appeared to arise from retroperitoneal space. General surgeon was called in and diagnostic aspiration was done. She had MRI done post operatively that showed a huge cystic lesion, measuring 8.3 cm x 9.1cm x 10cm and associated with another lobulated multiseptated cystic lesion in the spinal canal at L5 vertebra and sacrum. Patient's MRI was discussed during multidisciplinary meeting and it was concluded that the cystic lesion is most likely to be Tarlov cyst. Patient remained asymptomatic and was planned for elective C section with a repeat MRI post delivery and further surgical intervention when the patient becomes symptomatic.

3. Discussion

Tarlov cyst are more common in female than male in 2:1 ratio and are symptomatic in less than 1% of the cases[3]. The common symptoms are pain in the lower back, coccyx, lower extremities or groin. Other symptoms can be hypesthesia or paresthesia over buttocks, between legs and lower body with bladder incontinence with lower body weakness and impotence. Endopelvic extension is rare and present in 5% of the cases[3]. Large Tarlov cyst are generally defined as cysts with more than 1.5cm diameter[4].Giant Tarlov cyst is when the diameter is more than 3cm and it is exceedingly rare with about only 10 cases reported so far. It has been suggested that large Tarlov cyst more than 1.5cm contributes to the symptoms and can be relieved by intervention. The best way to assess and diagnose Tarlov cyst is by MRI. It has the highest diagnostic value because there will be no bony interference and enhanced resolution of tissue density[5]. The objective of treatment for Tarlov cyst is to relieve symptoms by reducing nerve stimulation and compression and stop bone erosion [6.] Although there are many treatment options available, there is no strong data comparison to show which technique is superior to the other[7]. Generally its divided into surgical and non surgical methods. Surgical options include cyst wall fenestration, cyst wall resection, simple decompressive laminectomy and myofascial flap repair and closure. Non surgical methods are lumbar cerebrospinal fluid drainage, percutaneous cyst drainage, and a more novel method involving cyst aspiration and lidocaine injection[8].A series of

31 cases showed that after surgical treatment 83% of patients had partial or complete relieve of symptoms. No significant long term safety concerns were reported and recurrences are rare with studies up till 15 years follow up. In this case, the patient became symptomatic only at 17 weeks POA despite having a giant Tarlov cyst. As it was large, occupying the intrabdominal and pelvic space it misled to the suspicion of a an ovarian cyst and a pre-operative MRI was not thought of. This is the first such case reported. The presence of such a large Tarlov cyst makes spontaneous vaginal delivery risky and an elective Caesarian section would be the safest option. This case report shows that an Obstetrician or a Gynaecologist may need to consider an MRI to rule out a Tarlov's cyst in a large pelvic cyst prior to proceeding with a laparatomy and excision of the cyst.

4. Conclusion

Tarlov cyst is a rare occurrence and can be symptomatic if the size is large. Surgical treatment will resolve symptoms with low rate of recurrence. There are many surgical treatments available however non is proven superior to the other. Despite its rare nature, Tarlov cyst should be considered and diagnosed promptly.

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