



## Case Report

# Obstructed labour due to bladder stone: Case report

Kiran Joshi<sup>1,\*</sup>, Vasant Kawade<sup>1</sup>

<sup>1</sup>Dept. of Obstetrics and Gynaecology, Walawalkar Medical College and Hospital, Chiplun, Maharashtra, India



### ARTICLE INFO

#### Article history:

Received 23-04-2020

Accepted 27-04-2020

Available online 12-09-2020

#### Keywords:

Vesical calculus

Obstructed labour

### ABSTRACT

Vesical calculus is a very rare complication of pregnancy and an uncommon cause of obstructed labour. If undiagnosed, it can be a diagnostic dilemma in labour if the patient presents in labour. We report a case of a large vesical calculus causing obstructed labour, presented in the second stage of labour in a remote, rural, tertiary care hospital. Caesarean section was done for obstructed labour, vesical calculus was diagnosed intraoperative and cystolithotomy performed simultaneously.

© 2020 Published by Innovative Publication. This is an open access article under the CC BY-NC license (<https://creativecommons.org/licenses/by-nc/4.0/>)

## 1. Introduction

Bladder stones are a rare complication of pregnancy, with only 10 cases reported till the end of last century.<sup>1</sup> A big calculus more than 100 gms leading to obstructed labour is a very rare clinical entity. Only 19 cases have been reported in literature till 2017.<sup>2</sup> Asymptomatic bladder stone can attain a large size. Such a big bladder stone may be diagnosed sometimes, though very rare for the first time during labour as in this case. In such situations timely intervention becomes very necessary so as to avoid complications of obstructed labour and urinary fistula formation. Here we report a case of a large vesical calculus causing obstructed labour in the second stage of, because of its rarity.

## 2. Case Report

A 20 year old primigravida with 9 months amenorrhoea was referred from a primary health centre in obstructed labour to BKL Walawalkar Rural medical college hospital. She had been in II stage of labour for about 2 hours over there in the PHC. Patient had not reported to any health care centre for antenatal care, domiciliary delivery was not possible and since had gone to the PHC in active labour. Since she had not reported anywhere for antenatal care, neither antenatal

records nor any ultrasound report was available.

General examination revealed, she was exhausted and dehydrated. On per abdominal examination there were good strong uterine contractions, the foetus was in longitudinal lie with cephalic presentation and the fetal head was only one fifth palpable. The foetus was small with expected baby weight of 2000gms. The uterus appeared thinned out and there was severe fetal bradycardia. Cervix was fully dilated and effaced with vertex at -4 station in left occipito anterior position, membranes were absent and there was grade 2 moulding. A firm, stony hard, smooth, globular immovable mass of was palpable in the right fornix. Bladder was catheterised without difficulty with a self-retaining catheter and 50 cc of concentrated urine was drained. Diagnosis of Pelvic space occupying lesion with a differential of either retroperitoneal tumour or bladder stone or calcified lower broad ligament fibroid, causing obstructed labour was made and she was taken for an immediate caesarean section.

The lower segment was stretched and thinned out at caesarean section. Since the head had descended quite deep into the pelvis, the baby was delivered by modified Patwardhan's manoeuvre. There was minimal thick meconium stained liquor. Female baby of 1880 gms cried well on resuscitation and 5 minute APGAR was 10. On completion of uneventful caesarean section a bladder stone impacted in the right lateral pelvic wall was slowly

\* Corresponding author.

E-mail address: [kiranjoshi.kvj@gmail.com](mailto:kiranjoshi.kvj@gmail.com) (K. Joshi).

disimpacted and it was diagnosed as a stone in the bladder. Cystolithotomy was performed and a large calcium stone of 6cm x 6.5cm weighing 130 gms was removed. The urinary bladder was sutured in single layer with no 0 vicryl. Haematuria disappeared on 2<sup>nd</sup> postop day and the catheter was removed on 21<sup>st</sup> postoperative day. Right renal hydroureter and hydronephrosis seen on immediate postoperative ultrasound were not seen after a month.



**Fig. 1:**



**Fig. 2:**

### 3. Discussion

Vesical calculi are uncommon in women and rare in pregnancy. Approximately 5% of all bladder stones occur in women.<sup>3</sup> Though often diagnosed before labour by ultrasound, stone trapped between cervix and symphysis pubis, can be missed even by ultrasonography because of the inability to focus by USG due to interference of fetal head.<sup>2</sup> Infections, premature deliveries, abortions are common complications. Urinary fistula and uterine rupture

is uncommon because these patients are often diagnosed in the antenatal period and treated accordingly. Suprapubic cystotomy is the safest approach to a large calculus in antenatal period, but it should be deferred until late in pregnancy to avoid precipitating premature labour.<sup>4</sup> If the patient is first seen in labour it may be possible to displace the calculus above the presenting part before the engagement of fetal head and allow spontaneous vaginal delivery.<sup>5</sup> Rarely, the stone becomes dislodged and comes in front of fetal head. Subsequent pressure on fetal head by each and every uterine contraction causes prolapse of the stone along with anterior vaginal wall causing pressure damage to the bladder wall leading to vesicovaginal fistula. Patient seen late in labour or in the second stage will often present with dystocia. In these caesarean section should be performed and the calculus removed at the same time.<sup>4</sup>

When the patient presents with obstructed labour in late second stage the diagnosis is often difficult and several other causes like retroperitoneal sarcomas,<sup>6</sup> Retroperitoneal ganglioneuroma,<sup>7</sup> pelvic echinococcal cysts<sup>8</sup> have been reported. The gold standard of management for bladder stone causing dystocia should be caesarean section and simultaneous cystolithotomy. Vaginal cystotomy is contraindicated in the presence of infection or bruising of the vaginal wall as a permanent fistula may result.<sup>4</sup>

### 4. Conclusion

Bladder stone itself is a very rare clinical entity. It is rarely diagnosed during labour. In our case, we did emergency caesarean section because a stony hard pelvic space occupying lesion was the cause of obstructed labour and it was important to prevent further maternal morbidity and salvage the foetus. Subsequent cystolithotomy was uneventful.

### 5. Source of Funding

None.

### 6. Conflict of Interest

The authors declare, they have no conflict of interest.

### References

1. Penning SR, Cohen B, Tewari D, Curran M, Weber P. Pregnancy complicated by vesical calculus and vesicocutaneous fistula. *Am J Obstet Gynecol.* 1997;176(3):728–9.
2. Chakraborty B, Mondal PC, Sahana R, Barman SC. A Giant Vesical Stone Causing Impending Rupture of Bladder During Labor. *J Obstet Gynaecol India.* 2015;65(4):267–70.
3. Stav K, Dwyer PL. Urinary Bladder Stones in Women. *Obstet Gynecol Surv.* 2012;67(11):715.
4. Armon PJ. Obstructed labour due to a vesical calculus. *BMJ.* 1977;2(6085):498.
5. Benkaddour YA, Aboufalah A, Abbassi H. Bladder stone: uncommon cause of mechanical dystocia. *Arch Gynecol Obstet.* 2006;274(5):323–4.

6. Foruhan B. Retroperitoneal sarcomas obstructing delivery: two case reports. *Intl J Obste Gynaecol.* 1979;86(9):747–8.
7. Kamin G, Theissig F, Löffler F, Lückert G. Retroperitoneal ganglioneuroma as a cause of obstructed labour. *Entralbl Gynakol.* 1986;108(16):1003–5.
8. Biale Y, Potashnik G, Ben-Adereth N. Obstructed labour due to pelvic echinococcal cysts. *Isr J Med Sci.* 1975;11(8):845–7.

### Author biography

**Kiran Joshi** Assistant Professor

**Vasant Kawade** Professor and HOD

**Cite this article:** Joshi K, Kawade V. Obstructed labour due to bladder stone: Case report. *Indian J Obstet Gynecol Res* 2020;7(3):430-432.