

# CASE REPORT

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## WOMB STONE: A CASE REPORT

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**ABSTRACT:** We report a case of calcified fibroid in a 34 year old reproductive female, persisting for more than nine years, with secondary infertility, without symptoms. Final diagnosis of calcified fibroid was made through radio-diagnosis. When the whole of the tumour is converted into a calcified mass, it is called 'womb stone'.<sup>[1]</sup> A calcified fibroid in reproductive age group is very rare. Hence we are presenting this case.

**KEYWORDS:** Calcified fibroid, Womb stone.

**INTRODUCTION:** Fibroid is the most common benign tumour of the uterus with an incidence of 20%. Of this, only 3% of cases are symptomatic. It is common in nulliparous women or those having one child infertility. The incidence of calcification as a complication is 10%. It usually involves subserous fibroids with a small pedicle, or myomas of post-menopausal women. There is precipitation of calcium salts in the tumour. When the whole of the tumour is converted into a calcified mass, it is called 'WOMB STONE'.<sup>[1]</sup>

**CASE REPORT:** A 34 year old female, P<sub>1</sub> L<sub>1</sub>, with last child birth 8 years back, came with complaints of anxious to conceive. Menstrual cycles were regular. She has been married for 10 years. She conceived 2 years after marriage, after being treated for primary infertility, with the diagnosis of fibroid uterus in 2006. A CT taken on 9/10/2006 had revealed peripherally calcified subserosal fibroid in the antero-superior aspect of the uterus, measuring 6.4 cms x 6.2 cms. USG report taken on 6/2/2007 showed a 12 weeks old fetus with fibroid. She delivered vaginally at full term. No systemic disease found.

Family and personal history was not relevant. Her general condition was good. Abdominal examination was normal. Speculum examination showed a clinically normal cervix. Per vaginal examination revealed an anteverted, mobile uterus. A well circumscribed mass of very firm to hard consistency, measuring about 8 cms x 8 cms was felt in the anterior wall of the uterus. Fornices were free. Patient was admitted with a provisional diagnosis of fibroid uterus. Fig. 2. - X-Ray taken on 26/9/2014 showed the presence of a round, calcified mass in the pelvis. Fig. 1 and 3, USG and CT scan of the pelvis, taken on 30/9/2014 showed the presence of a round, calcified mass in the uterus, measuring 8 cms x 8 cms. Hence, a diagnosis of Calcified Fibroid Uterus was arrived at. Removal of calcified fibroid was planned as she wanted to conceive with conservative management.

**DISCUSSION:** Fibroid or Leiomyoma, is the most common benign tumour of the uterus and the most common benign solid tumour in females. Calcific degeneration (10%), is a complication of fibroid, which usually involves subserous fibroids with small pedicles or myomas in post-menopausal women. It is usually preceded by fatty degeneration. There is precipitation of calcium carbonate or phosphate within the tumour. When the whole of the tumour is converted into a calcified mass, it is called 'WOMB STONE'.<sup>[1]</sup>

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As leiomyomas enlarge, they outgrow their blood supply, which may lead to one of many types of degeneration such as hyaline degeneration (most common, 63%), red degeneration, fatty changes, and calcification, which is most commonly seen in post-menopausal women.

**INCIDENCE:** 20% of women at the age of 30 years have a fibroid in their wombs. 50% remain asymptomatic. Incidence of symptomatic fibroids in hospital OPDs is about 3%. It is common in nulliparous women and in those having one child infertility. Prevalence is higher in the age group of 35 to 45 years.<sup>[1]</sup>

Radiological Imaging Studies show a round uterine tumor with dense and well-defined calcifications. The differential diagnosis of a calcified mass in the pelvis include Bladder stone, Calcified neoplasm, Calcified aneurysm, Dystrophic soft tissue calcification, Lithopedion, Foreign body. It is important for clinicians to be familiar with unusual appearances of fibroids.<sup>[2]</sup> A dense well-defined calcification in the pelvis is pathognomonic of calcified fibroid of the uterus.<sup>[3]</sup>

**HISTIOGENESIS:** Estrogen and Progesterone have been suggested to have a mitogenic effect on leiomyoma cells, and act by influencing a large number of growth factors, cytokines, apoptotic factors and other hormones. The effects of estrogen and progesterone are modulated by the interaction between estrogen, progesterone and prolactin signaling which controls the expression of the respective nuclear receptors.

Estrogen is believed to promote growth by up-regulating Insulin-like Growth Factor-1 (IGF-1), Epidermal Growth Factor Receptor (EGFR), Transforming Growth Factors- $\beta$ 1, $\beta$ 3 (TGF-  $\beta$ 1, $\beta$ 3) and Platelet Derived Growth Factor (PDGF), and promotes aberrant survival of leiomyoma cells by down-regulating p53, increasing the expression of anti-apoptotic factor PCP4 and antagonizing Peroxisome Proliferator-Activated Receptor- $\gamma$  (PPAR-  $\gamma$ ) signaling. Progesterone is thought to promote growth of the leiomyoma by up-regulating BCL-2 expression and down-regulating Tumour Necrosis Factor- $\alpha$  (TNF-  $\alpha$ ). Progesterone is believed to counteract growth by down-regulating IGF-1.<sup>[4][5][6]</sup>

Expression of Transforming Growth Interacting Factor (TGIF) is increased in leiomyoma as compared to myometrium.<sup>[7]</sup>

**CONCLUSION:** Calcification is a rare complication of fibroid (10%). The pathogenesis of dystrophic calcification is still poorly understood. This commonly occurs in inflammatory processes and in tissues undergoing uncontrolled growth, such as benign or malignant tumors.

This may be caused by a shift in the chemical environment in such a way that insoluble calcium salts are more likely to get precipitated.<sup>[8]</sup> This is more easily co-related with old age. However, in reproductive age group, such occurrences are very rare.

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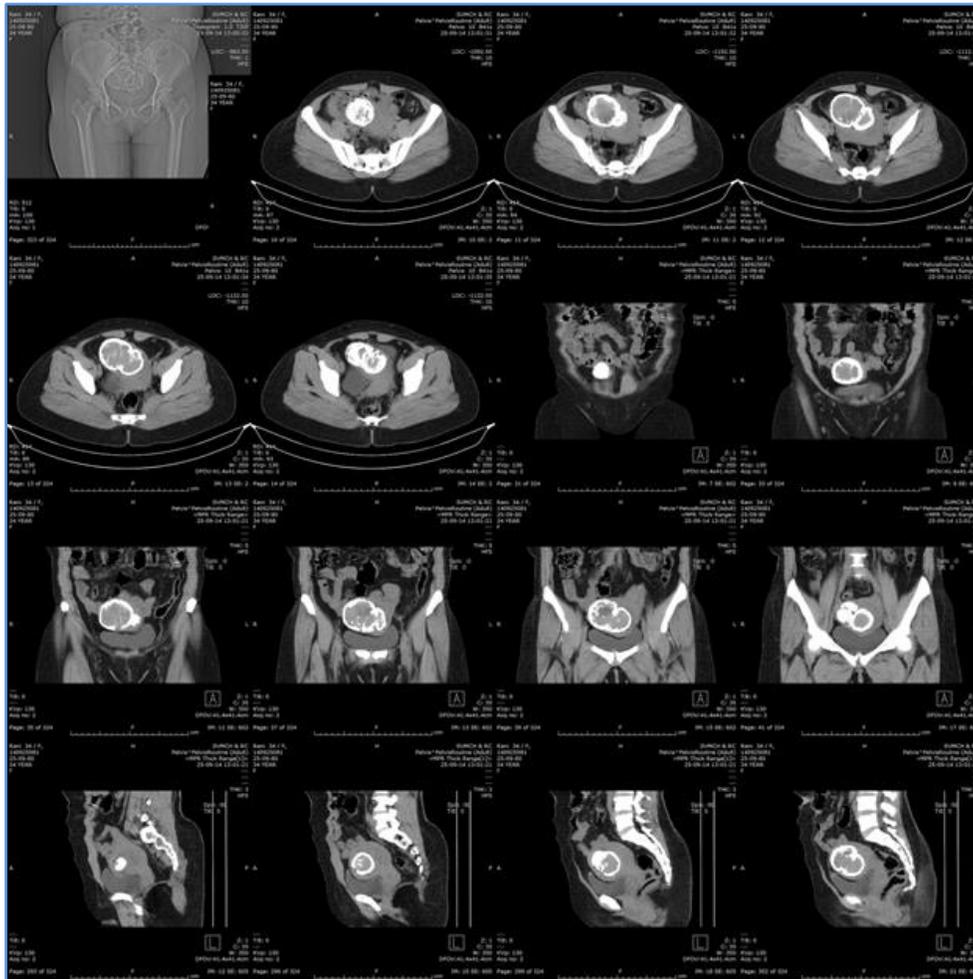


**Fig. 1: USG Picture**



**Fig. 2: X RAY PELVIS showing calcified mass in pelvis**

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**Fig. 3: CT SCAN PELVIS - Showing calcified mass in uterus**

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