**Journal of Neonatal Surgery**
***ISSN(Online): 2226-0439***
***Vol. 14, Issue 8 (2025)***
*https://www.jneonatalsurg.com*

OPEN ACCESS

# Leiomyoma With Ossification- An Unusual Case Presentation

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Cite this paper as: Dr. P Meilung Phom, Dr. J Thanka, Dr. R.S Gayathri Priyadarshini, (2025) Leiomyoma With Ossification- An Unusual Case Presentation. *Journal of Neonatal Surgery*, 14 (8), 84-86.

**ABSTRACT**

Uterine leiomyomas are common benign smooth muscle tumours, yet the occurrence of ossification within these tumours remains a rare and intriguing entity. This case explores the clinical, radiological and pathological features of leiomyoma with ossification. Radiologically, these entities often present as heterogeneous masses with calcifications. Histopathologically, the presence of mature bone within the smooth muscle tumour characterizes this variant, though the precise etiology remains unclear. Leiomyoma with ossification represents a unique subset within the spectrum of benign smooth muscle tumours, necessitating a multidisciplinary approach for accurate diagnosis and appropriate management for optimal patient care and outcome.

***Keywords:*** *Leiomyoma, Ossification*

## 1. INTRODUCTION

Uterine leiomyomas are benign smooth muscle tumours that can take many different forms. The incidence ranges from 4% to 11%, but after the age of 50, it rises to roughly 40%. Premenopausal women are less likely than postmenopausal women to have clinically noticeable lesions, and parous women are less likely than nulliparous women. Higher numbers of estrogen receptors are expressed in the normal myometrium of leiomyoma, which contains uteri; this may be connected to the pathophysiology of the condition. Cellular leiomyoma, leiomyoma with strange nuclei, mitotically active leiomyoma, hydropic leiomyoma, fumarate hydratase-deficient leiomyoma, apoplectic leiomyoma, lipoleiomyoma, epitheloid leiomyoma, myxoid leiomyoma, dissecting leiomyoma, as well as diffuse leiomyomatosis are some of its subtypes.

## 2. CASE REPORT

A female patient, age 34, complained about heavy menstrual bleeding associated with passage of clots and dysmenorrhoea for 2 years. She had an obstetric history of two normal vaginal deliveries at term and one history of abortion.

Ultrasound abdomen showed a bulky uterus measuring 9.3x8.2x6.5 cm, multiple fibroids (3-4) noted in the anterior and posterior myometrium. Largest measuring 4x6.2 cm in posterior myometrium. Ultrasound impression was given as Uterine fibroids.

Hysterectomy was done, and we received uterus with bilateral tubes and ovaries. On examination, the uterus showed multiple leiomyomata.

Microscopy of one leiomyoma showed areas of dystrophic calcification and ossification.

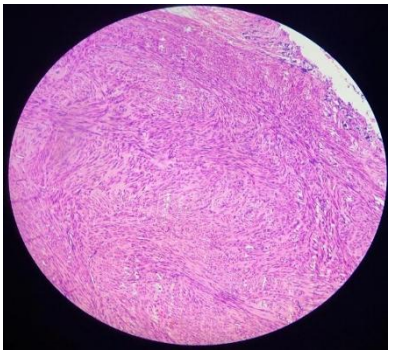

**Figure 1: Benign spindle cells H & E x 100**

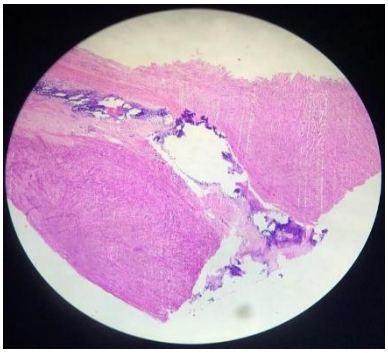

**Figure 2: Leiomyoma with areas of dystrophic calcification H & E x 100**

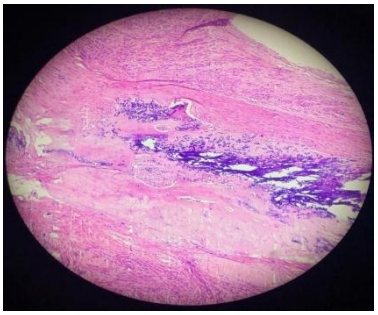

**Figure 3: Leiomyoma with areas of dystrophic calcification and ossification H & E x 100**

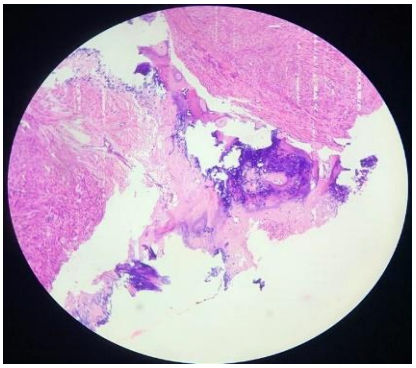

**Figure 4: Leiomyoma with features of dystrophic calcification and ossification H & E x 200**

## 3. DISCUSSION

Leiomyomas, one of most prevalent tumours of the female genital tract, can develop several secondary changes, such as hyaline change, cystic degeneration, and atrophy. Calcareous degeneration, red degeneration, sarcomatous change, torsion, haemorrhage, infection and inversion of the uterus. The alterations are caused by insufficient blood flow, which causes collagen, calcium, mucopolysaccharides, hyaline material, or a mix of these to replace muscle fibres.

Ossification is a rare change in the uterine leiomyomas, and in most of the reported cases, ossification was followed by a previous history of abortion. It is believed that ossification in uterine leiomyoma is heterotopic bone production. Frank osteoid material may be discovered as metaplastic event, following dystrophic calcification, or as a sequela to a previous missed abortion.[1] Calcification refers to the deposition of calcium in tissues as carbonate and phosphate, whereas ossification denotes the development of connective tissue characterized by collagen fibres interspersed with mucopolysaccharides, as well as encompassing live cells.[5]

Only five of the 900 leiomyoma cases identified on hysterectomy tissues in one investigation by Harsh Mohan et al. displayed secondary ossification alterations, which were also linked to other degenerative changes like calcification and hyalinization. Under a microscope, leiomyoma was seen in three cases with secondary ossification modifications linked to hyalinization, and in two cases, it was observed in conjunction with calcification.[6]

## 4. CONCLUSION

Though many secondary changes are commonly associated with long-standing leiomyomas, such as calcification as well as hyalinization, a rare occurrence, dystrophic calcification with ossification, was seen in our case.

## REFERENCES

[1] Umashankar T, Patted S, Handigund RS. Endometrial osseous metaplasia: Clinicopathological study of a case and literature review. Journal of Human Reproductive Sciences. 2010 May 1;3(2):102-4.

[2] Suranagi V, Bannur HB, Davanagere R, Dafale S. Ossification with Extensive Calcification of Uterine Leiomyoma in a Postmenopausal Woman. Journal of South Asian Federation of Obstetrics and Gynaecology. 2014 Aug 1;4(1):54-5.

[3] Reddy DB, Rao N, Rao DV. Ossifying myoma of the fallopian tube.(Report of a case). Indian journal of pathology & bacteriology. 1967 Oct;10(4):368-71.

[4] Lekha MB, Vijaya C, Narasimha A, Shetty A. Uterine leiomyomatosis with ossification: case report of a rare entity. Journal of Evolution of Medical and Dental Sciences. 2014 Mar 31;3(13):3234-8.

[5] Suranagi V, Bannur HB, Davanagere R, Dafale S. Ossification with Extensive Calcification of Uterine Leiomyoma in a Postmenopausal Woman. Journal of South Asian Federation of Obstetrics and Gynaecology. 2014 Aug 1;4(1):54-5.

[6] Mohan H, Punia R, Kumar S, Jain P, Handa U. Ossification in uterine leiomyomas. Int J Gynecol Obstet. 2003;2(1).