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**Mast cell profile in myometrial lesions: a study of 577 cases**

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**Abstract**

**Introduction:** The human uterus is considered to be relatively rich in mast cells compared to the other tissues of the body. However, there are only a limited number of studies correlating mast cell profile in various benign and malignant myometrial lesions.

**Methodology:** The present study comprised of 577 uterine hysterectomy specimens received from Department of Obstetrics and Gynaecology, Muzaffarnagar Medical College, Muzaffarnagar for histopathological examination which was conducted in the Department of Pathology, Muzaffarnagar Medical College and Hospital, Muzaffarnagar.

**Results:** On analysing the myometrium of all the 577 cases, majority of the cases (230 cases) lacked any significant pathology which was found to be about 39.86% (Table 1). Leiomyoma (figure 1) was found to be the most common pathology in 139 cases (24.09%) followed closely by adenomyosis (figure 3) in 130 cases (22.53%). Cases with dual pathology comprising of both leiomyoma and adenomyosis accounted for 74 cases (12.82%) while 3 cases (0.52%) turned out to be endometrial adenocarcinoma invading the myometrium and one case (0.17%) was of myometritis.

**Conclusion:** Based upon the observations of this study, progressively decreasing mast cell count from benign to malignant lesions in myometrium was observed. It is suggested that mast cell count appears inversely proportional to the degree of dysplasia and may act as a good prognostic indicator of the benign nature of the lesions.

**Key words:** adenomyosis, mast cell, leiomyoma, toluidine blue