

## CHAPTER 26

### BENIGN GYNECOLOGICAL DISORDERS AND ENDOMETRIUM

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#### **Is the endometrium of subjects with uterine leiomyomas different?**

Endometrium of women with uterine fibroids may appear histologically normal but, in fact, may exhibit defective expression of some receptivity biomarkers. It is most likely that defective expression growth factors, cytokines and receptivity genes within the endometrium of women with uterine fibroids can be responsible for failed endometrial receptivity. Harmful signaling molecules including BMP-2 that originates from the uterine leiomyomas may reach to the endometrium via intercellular communication routes and may disturb the expression of receptivity genes (1,2).

#### **What is the main histological endometrial finding of subjects with uterine leiomyoma?**

Recent comprehensive review and clinical study conducted by our team have been reported that glandular endometrial atrophy is the most frequent histological change in subejcts with uterine leiomyomas (1,2).

#### **Do uterine fibriods secrete any molecules affecting receptivity?**

Uterine leiomyomas produce and release TGF- $\beta$ 3. Endometrium of women having uterine leiomyomas show BMP-2 resistance. Taken together, TGF- $\beta$ 3 secretion from uterine leiomyomas induces BMP-2 resistance in endometrium and leads to defective endometrial decidualization and failed receptivity (1,2).

#### **Is the endometrium of subjects with adenomyosis functionally defective?**

Close association between the occurrence of adenomyosis and functional defects in eutopic endometrium has been reported. Adenomyosis disturbs endometrial receptivity in a manner similar to endometriosis. More than 50% of women with endometriosis simultaneously had adenomyosis. The existence of adenomyosis has been found to associated with life long infertility in baboon model of adenomyosis.

## References

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