1. [Qiu's Neiyi Recipe Regulates the Inflammatory Action of Adenomyosis in Mice via the MAPK Signaling Pathway.](https://pubmed.ncbi.nlm.nih.gov/34931128/)

Ying P, Li H, Jiang Y, Yao Z, Lu S, Yang H, Zhu Y.Evid Based Complement Alternat Med. 2021 Dec 11;2021:9791498. doi: 10.1155/2021/9791498. eCollection 2021.PMID: 34931128 **Free PMC article.**

## Abstract

**Background:**The management of adenomyosis is challenging and limiting. Qiu's Neiyi recipe (Qiu) is a traditional Chinese medicine (TCM) prescription clinically used for endometriosis treatment in China, but the effect and mechanism of Qiu on adenomyosis are undefined.

**Methods:**An experimental adenomyosis model was induced in female neonatal ICR mice administrated with tamoxifen. The adenomyosis mice were divided into five groups: high-, middle-, and low-Qiu's group, danazol group, and model group. The mice just administrated with the solvent only (no tamoxifen or drugs) were served as the control group. After 28 days of administration, the body, uterine, spleen, and thymus weights of all mice were examined. Then, the myometrial infiltration and the expression of inflammatory factors were detected by histology examination, ELISA, and qRT-PCR in the uterus. In addition, the MAPK/ERK signaling pathway-related protein expression in adenomyosis mice was detected by immunohistochemical (IHC) staining, qRT-PCR, and western blotting.

**Results:**In experimental adenomyosis mice, Qiu treatment improved the symptoms of adenomyosis by reducing the myometrial infiltration and increasing the index of spleen and thymus. The elevated levels of IL-1*β*, IL-6, and TNF-*α* in serum and uterus tissues of adenomyosis model mice were also decreased after Qiu treatment. The improvement of Qiu on the adenomyosis was achieved by inhibiting the activated MAPK/ERK signaling pathway, including reducing the mRNA and protein expressions of p-ERK/ERK, p-JNK/JNK, and p-p38/*p*38 in the uterus tissues.

**Conclusion:**Qiu alleviated the inflammatory reaction and uterus histological changes in mice with adenomyosis, and the potential mechanism is through the inhibition of the MAPK/ERK signaling pathway. Qiu may be a promising treatment for adenomyosis.