

Ultrasonographic evaluation of the change in uterine fibroids induced by treatment with a GnRH analog

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摘要

Abstract

Objective: To investigate the change in volume of uterine fibroids after GnRH analog (GnRHa) treatment. Materials and Methods: Twenty-five patients who had a uterine leiomyoma were included in this study. Four of them were lost to follow-up during the study, and a myomectomy was performed on the remaining subjects. All of these patients received two doses, 4 weeks apart, each of 3.75 mg leuprorelin acetate subcutaneously (Leuplin depot, a GnRHa) before the operation. The vascularization index (VI), flow index (FI), vascularization-flow index (VFI), pulsative index (PI), resistance index (RI), vascular patterns (histogram), blood flows, and sizes (volume and largest diameter) of each fibroid were measured with power Doppler by the same technician every month before the operation. In addition, the total blood loss and time required for each operation were also recorded. Results: Results of this study showed that the volume of the uterus and the fibroids, but not the vascularity, including VI, FI, VFI, PI and RI, decreased significantly after two doses of GnRHa treatment. In addition, blood loss during the operation decreased significantly compared to an untreated group. Conclusion: We found that the volumes of the uterus and fibroids decreased significantly after treatment with two consecutive doses (given a month apart) of GnRHa. The 3D color Doppler including a histogram and blood flow parameters is another useful tool for fibroid evaluation.