Abstract

We measured basal clitoral blood flow by Doppler sonography to determine whether tension-free vaginal mesh (TVM) affects the clitoral blood flow and sexual function in women with pelvic organ prolapse (POP). We performed a prospective study of 22 patients who underwent TVM for POP. Clitoral blood flow was measured by Doppler ultrasound. The resistance index (RI), pulsatility index (PI), peak systolic velocity (PSV), and end-diastolic velocity (EDV) of the clitoral arteries were measured preoperatively and at 1, 3, and 6 months postoperatively. Female sexual function was also investigated with the Female Sexual Function Index (FSFI). The mean PI and RI were increased at 1 month and significantly decreased at 6 months postoperatively (p<0.05). In contrast, the mean PSV and EDV decreased at 1 month postoperatively and increased at 6 months postoperatively. These four parameters recovered to baseline levels at 6 months following surgery. Total FSFI scores improved significantly from 10.2±7.9 at baseline to 18.2±8.9 at 6 months postoperatively. Color Doppler ultrasonography is potentially useful in measuring clitoral blood flow in patients treated with TVM for POP. Prospective long-term studies are needed to evaluate the utility of this modality as a diagnostic and prognostic tool for female sexual dysfunction.

Keywords: clitoris, pelvic organ prolapse, Doppler ultrasound