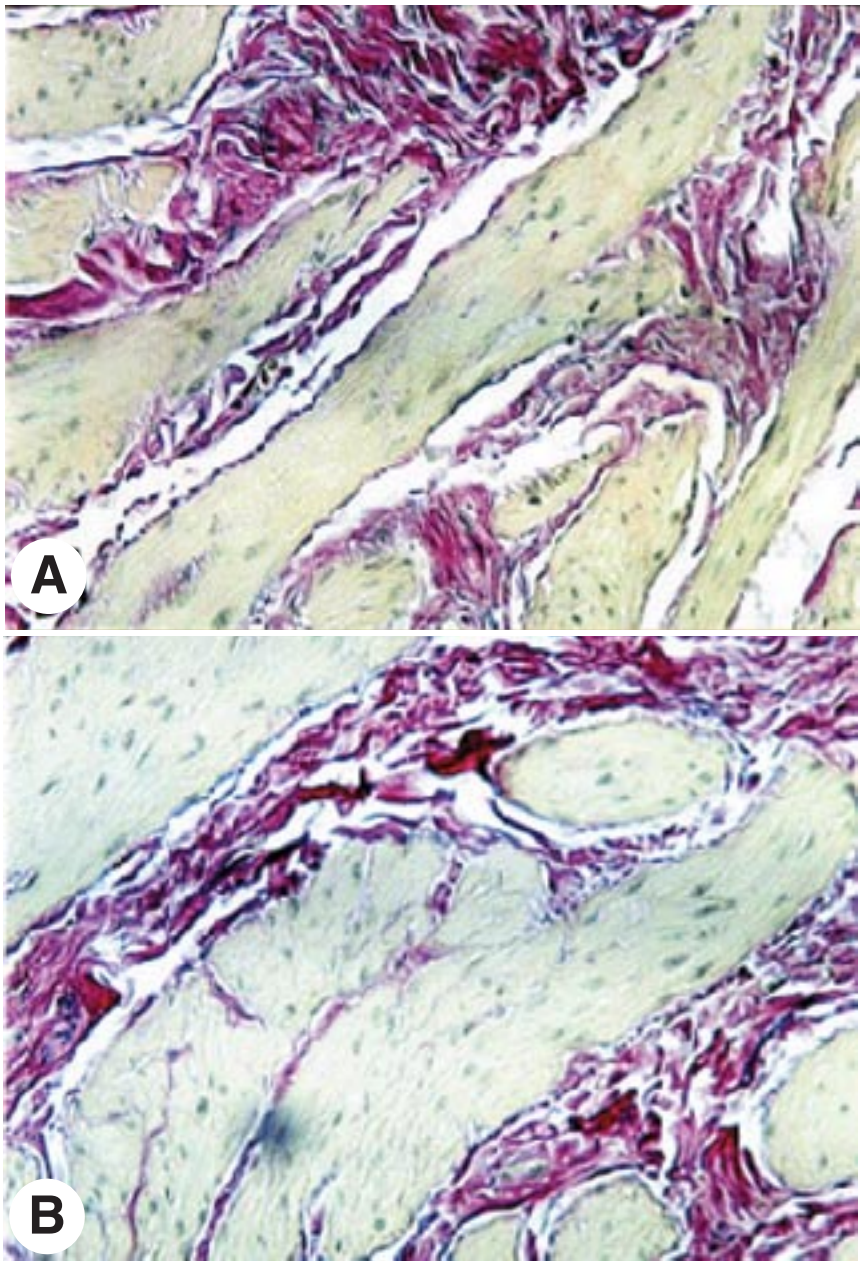

Fig. 2. Sections of rat bladders stained with the Elastica-van Gieson method (original magnification, × 400).
A: A control rat (Group I).
B: A rat treated with E2 for 4 weeks (Group II).
C: A rat treated with E2 for 8 weeks (Group III).
D: A placebo rat (Group IV).

Figs. 2A and B on p. 86 and Figs. 2A and D on p. 87

Discussion

Past experiments in both humans and animals have shown that estrogen receptors are present in the urethra and bladder. Estrogen influences lower urinary tract function and continence with various mechanisms: estrogen increases cell activity in the bladder and urethra, increases blood flow in the urethral submucosa and urethral sphincter, sensitizes urethral sphincter α-adrenargic receptors and stimulates periurethral connective tissue metabolism (Screiter et al., 1976; Versi and Cardozo, 1986; Bergman et al., 1990; Blakeman et al., 1996; Jackson et al., 1996).

We studied the effects of estrogen replacement therapy on mature rats whose estrous cycles have discontinued. Our specific attention was paid to any result of estrogen replacement therapy: bladder changes in blood flow, number of blood vessels, tissues and weight. Furthermore, to study the effects of