Supplementary figure legends

Supplementary Figure S1. Experimental design and protocol to study the chemotherapeutic effect of intravesical silibinin on carcinogenesis and progression of bladder cancer initiated by MNU in female Sprague-Dawley rats.

Supplementary Figure S2. Growth inhibition and apoptotic effect of silibinin on 5637 cells. **A**, cells were incubated with various concentrations of silibinin for different periods. Then, the cell viability was determined using MTT assay. **B** and **C**, representative pictures of phosphatidylserine exposure and DNA fragmentation in response to different doses of silibinin treatment for 48 h, as detected by Annexin V/PI labeling assay and TUNEL assay. **D**, quantitative data for the percentage of TUNEL positive cells. All results were obtained from three independent experiments. SB, silibinin. The scale bar represents 20 μm. Error bars represent SEs. $*P < 0.05$.

Supplementary Figure S3. Immunolocalization of AIF after silibinin exposure. Cells were incubated with 200 μM silibinin and/or 80 μM z-VAD-fmk for 48h, then were fixed and permeabilized, followed by immunostaining with anti-AIF (green fluorescence). In combination treatment, z-VAD-fmk was added 1h prior to silibinin treatment. The scale bar represents 10 μm.

Supplementary Figure S4. Effects of intravesical silibinin on diet intake and

apoptosis in SD rat. **A**, the average diet consumption of each rat was recorded weekly during the experiment. **B**, quantitative data for percentage of TUNEL positive cells in each group. Error bars represent SEs. *$P < 0.05$.