STSS, a potentially fatal disease, requires early diagnosis and treatment. Symptoms vary, making diagnosis difficult and delaying treatment.

A 53-year-old woman presented in the ER with chills, vomiting, fatigue, lightheadedness and diarrhea of one day duration. A clinic had prescribed 500 mg/day of levofloxacin but her condition worsened. Unremarkable medical history except for hypermenorrhea, with last menstrual period starting one week prior.

Vital signs: BP (82/52 mmHg), tachycardia (96 beats/min), tachypnea (28 breaths/min), fever (39.7°C).

Physical Examination: somnolence without nuchal rigidity, eye discharge, abdominal rash, pain upon pressure in hypogastric region. Dark green discharge appeared upon removal of a tampon.

Laboratory results: WBC 20,100/μl (Neu 97.1%), Hb 14.6 g/dl, Hct 44.8%, Plt 1.07x10^3/μL, Na 134 mEq/L, K 3.3 mEq/L, Cl 100 mEq/L, HCO3 19.2 mmol/L, BUN 42.8 mg/dl, Cre 1.36 mg/dl, glucose 96 mg/dl, ALT 98 U/L, AST 208 IU/L, T-bil 1.6 mg/dl, ALP 222 IU/L, CK 245 IU/L, CRP 21.44 mg/dl, PT 62.8%, PT-INR 1.22, APTT 36.6sec Fib 545 mg/dl, D-dimer 4.5 μg/dl, and PCT 40.95 ng/ml.

Ceftriaxone 3 g TID was initiated after blood cultures, stool culture and a vaginal swab. Vaginal swab positive for methicillin-sensitive staphylococcus aureus, diagnosed with STSS due to the tampon. Therapy changed to clindamycin 900 mg TID, ceftriaxone 2 g BID, PCG 20 million units TID, immunoglobulin 5 g/day. She improved quickly and was discharged after 7 days.

STSS is mainly caused by staphylococcal toxin, especially toxic shock syndrome toxin-1 (TSST-1). Tampons are an etiological factor. Early diagnosis and treatment are difficult due to nonspecific symptoms (vomiting, confusion, fever). Physicians should consider STSS in women with these symptoms. Treatment includes tampon removal, antibiotics and debridement. Antimicrobial therapies (clindamycin or linezolid) that neutralize TSST-1 production and intravenous immunoglobulin improve survival.