

# Non-Menstrual Toxic Shock Syndrome (NMTSS), Is the diagnosis challenging for Gynaecologists? Hend Hadawi ST5

## Background

TSS is rare < 200 cases reported annually in the UK. Classically, described in menstruating women due to high-absorbent tampon used but it is reported up to 45% in non-menstrual women. TSS is a life-threatening toxin-mediated illness caused by *Staphylococcus aureus* or *Streptococcus pyogenes*. Staphylococcal TSS is typically the result of a localized infection whereas streptococcal TSS may result from systemic infection. The fatality rate of Streptococcal TSS may exceed 50% while non-streptococcal TSS is < 3%

## Case

47 years old lady had two children (16 and 14 years). There were no significant past surgical or gynaecology history of note and known to have hypertension, treated with Ramipril and Amlodipine. Periods were regular and the last period was a week ago and there were no concerns with smear tests. She is married and did not use any contraception.

She was admitted to the Accident and Emergency department with recent history of pyrexia, tachycardia and tachypnoea. She reported having diarrhoea, vomiting and lethargy for last three days but with no rash. Speculum examination was unremarkable and high vaginal swab (HVS) was taken. Biochemical markers revealed significant raise in the inflammatory markers (C-reactive protein 364, white cell count 23.4) and serum lactate 4.7. There was severe deranged in the liver enzymes (Alanine transaminase 145, Alkaline phosphatase 140) and abnormal renal function (Creatinine 104, blood urea 10.4). The covid swab was negative. She was reviewed by the gynaecology team and stated there were no gynaecology concerns. She was admitted to the intensive care unit and treated conservatively with intravenous antibiotic and intravenous fluid. After 48 hours the HVS showed growth of *Staphylococcus aureus*. She responded well to the conservative management and was discharged hospital in day three and will be followed up in outpatient clinic regarding deranged LFT.

## Conclusions

TSS is a challenging diagnosis and can occur at any age, race, or sex and must be considered in the differential diagnosis for any patient with multisystem organ involvement. It is imperative to consider that TSS is not a disease related to the tampon use only. Early recognition and rapid management is mandatory to avert serious morbidity and mortality.