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Introduction & Objectives: Fournier gangrene is necrotizing fasciitis of the external genitalia, perineum and perianal region. It is a rare and aggressive form of soft tissue infection, and immediate surgical therapy is necessary. The disease is more prevalent among elderly men in immunosuppressive states. The reported mortality rate is varied among researchers.

With increasing population age, it is critical to raise awareness of this disease, especially early diagnostics and initial therapy.

The objective of this study was to collect data on Fournier gangrene patients who were treated in Latvia in the last 8 years, and compare the results to the data found in latest publications on this subject.

Materials & Methods: Patients who were treated for Fournier gangrene in Riga East University Hospital and in Jekabpils Regional Hospital from year 2010 to 2018 were identified. The medical records of these patients were studied, and data about their age, comorbidities, length of hospitalization, laboratory and microbiology tests, surgical and antibacterial treatment choices etc. was collected. The data was analyzed with standard statistical methods, and compared with relevant data found in medical literature and recent publications on this subject.

Results: There were a total of 17 patients included in the study.

The epidemiologic data found coincides with that of the literature from USA and rest of Europe. Mean age was 63 ±13 years.

The data on risk factors also coincides with published information – almost fifth of the study's patients had diabetes mellitus, several had alcohol dependency, cirrhosis and other immunosuppressive conditions. Several patients had recently undergone invasive urologic manipulations.

Data on causative organisms matches the data found in most relevant sources – Fournier gangrene is an opportunistic infection caused by intestinal flora, streptococcus, and staphylococcus. In every case there were at least 2 pathogens isolated from the wound material, with the mean at 3.3 species per patient.

The treatment strategies were also analyzed, and it has been concluded, that it corresponds with the proposed treatment in European Association of Urology (EAU) guidelines - repeated debridement and broad spectrum antibiotics. Although it was noted that the combinations of the empirical drugs used were not always as suggested by the EAU.

Mortality rate was 29%, which coincides with the reported mortality in older publications, but in recent multi-centre studies from USA, the mortality is found to be as low as 4.7%.

Conclusions: Fournier gangrene is a urological emergency, and mortality rate remains high, despite modern surgical and antibacterial treatment options. Data collected from the two hospitals in Latvia mostly coincides with the published data on this subject.

The research directions in which the study can be continued is by obtaining data from other regional hospitals in Latvia, and analyzing the data in conjunction with the results of this paper.