

# The utility of the quick sequential organ failure assessment (qSOFA) score in predicting mortality in Fournier's gangrene patients undergoing emergency surgery

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## ABSTRACT

**BACKGROUND:** This study aimed to evaluate the predictive value of the quick Sequential Organ Failure Assessment (qSOFA) score in estimating mortality risk in Fournier's gangrene patients and to provide a simple tool for early clinical decision-making.

**METHODS:** This retrospective study included patients who underwent emergency debridement for Fournier's gangrene between 2022 and 2024. Patients with systemic involvement of the perianal and inguinal canal were included. Clinical parameters, laboratory markers, Fournier's Gangrene Severity Index (FGSI) scores, and outcomes such as mortality and hospital stay were analyzed. Patients were categorized into two groups: Group 1 (qSOFA 0-1) and Group 2 (qSOFA  $\geq 2$ ). Univariate and multivariate logistic regression analyses were performed to identify independent predictors of mortality.

**RESULTS:** Among 89 patients, 55 were in Group 1 and 34 in Group 2. The overall mortality rate was 21.35% (Group 1: 12.73%, Group 2: 35.29%,  $p < 0.05$ ). Significant differences were observed between groups in age, comorbidities, respiratory rate, procalcitonin, FGSI scores, and hospital stay (all  $p < 0.05$ ). Univariate analysis identified age, FGSI score, comorbidities, and procalcitonin as mortality-related factors. A qSOFA score  $\geq 2$  was significantly associated with higher mortality ( $p < 0.05$ ), and multivariate analysis confirmed it as an independent predictor (odds ratio: 3.00,  $p < 0.05$ ).

**CONCLUSION:** The qSOFA score is a simple and reliable predictor of mortality in Fournier's gangrene, supporting its use for early risk assessment and timely clinical interventions.

**Keywords:** Fournier's gangrene; qSOFA score; mortality prediction; sepsis; prognostic tool.

## INTRODUCTION

Fournier's gangrene (FG) is a life-threatening type of necrotizing fasciitis that primarily affects the perineum, genitalia, and surrounding tissues.<sup>[1]</sup> Although FG is a rapidly progressing and life-threatening infection, recent advances in diagnostic tools, treatment modalities, and clinical experience have significantly reduced its mortality rates. Current literature reports mortality rates of approximately 10-20%.<sup>[2-5]</sup> FG commonly occurs in patients with underlying risk factors such as diabetes mellitus,

immunosuppression, chronic kidney disease, and alcoholism.<sup>[6-7]</sup> Early diagnosis and treatment, including surgical debridement, intravenous antibiotics, and intensive care support, are essential for improving survival outcomes.<sup>[8]</sup> However, the rapid progression of the disease poses challenges for timely risk assessment and prognosis.

Clinicians have used Fournier's Gangrene Severity Index (FGSI) to evaluate disease severity and predict mortality.<sup>[9]</sup> Although FGSI has demonstrated clinical utility, it requires multiple labo-

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ratory investigations and involves complex calculations, which may be impractical in emergency settings or resource-limited environments. Furthermore, the predictive accuracy of FGSI has been debated, with studies reporting inconsistent reliability across different patient populations and demographic groups.<sup>[10]</sup>

The quick Sequential Organ Failure Assessment (qSOFA) score has recently gained attention for its simplicity and ease of application at the bedside. Initially developed to identify patients at risk of adverse outcomes from sepsis, the qSOFA score consists of three variables: impaired cognitive state, a respiratory rate of 22 breaths per minute or greater, and a systolic blood pressure of 100 mmHg or lower.<sup>[11]</sup> Its straightforward design makes it highly practical in emergency settings. However, research on the utility of qSOFA in the context of FG remains limited.<sup>[12]</sup>

The literature provides insufficient information regarding the effectiveness of the qSOFA score in predicting mortality specifically in patients with FG. Some studies suggest that qSOFA could be a useful prognostic tool, but there are few direct comparisons with other established scoring systems, including the FGSI, in the context of FG. Additionally, the sensitivity and specificity of the qSOFA score in identifying high-risk FG patients have not been thoroughly studied.<sup>[13]</sup> Since FG is often associated with sepsis, it is important to evaluate whether qSOFA can serve as a simple and reliable predictor of mortality in these patients.

This study has two main objectives: the primary aim is to examine the predictive value of the qSOFA score in estimating mortality risk among patients with FG, and the secondary aim is to provide clinicians with a simpler and more accessible tool for early risk assessment and decision-making in managing this critical condition.

## MATERIALS AND METHODS

This retrospective study evaluated patients who underwent emergency debridement for FG between 2022 and 2024. Approval for the study was obtained from the Ethics Committee of our hospital for the study (29.01.2025/ AEŞH-BADEK-2024-1215). All participants provided written informed consent prior to inclusion in the study, which was conducted in accordance with the Declaration of Helsinki.

### Inclusion and Exclusion Criteria

Patients with systemic involvement of the perianal and inguinal canal who underwent debridement were included in the present evaluation. In contrast, patients with localized FG (without involvement of the Colles fascia, affecting only the penis or scrotum) and those diagnosed with an abscess were excluded.

### Evaluated Patient Parameters

We analyzed several patient parameters using the hospital

data system. These included age, gender, comorbidities, fever, respiratory rate, heart rate per minute, mental function status, serum electrolytes (such as sodium, creatinine, and potassium), infection parameters (white blood cell count, procalcitonin, and C-reactive protein (CRP)), intensive care parameters (bicarbonate and lactate levels), FGSI scores, mortality rates, and length of hospital stay.

### qSOFA Score Assessment and Application

The qSOFA score is designed to quickly identify patients at risk of unfavorable outcomes due to sepsis. Introduced in the 2016 Sepsis-3 (the Third International Consensus Definitions for Sepsis and Septic Shock) guidelines, the qSOFA score is a simplified version of the more comprehensive SOFA score. It consists of three criteria, each contributing one point to the total score: altered mental status (reflected by a Glasgow Coma Scale (GCS) score of less than 15 or confusion), a respiratory rate of 22 breaths per minute or greater, and a systolic blood pressure of 100 mmHg or less. The total qSOFA score ranges from 0 to 3, with a score of 2 or higher indicating an increased mortality risk. This highlights the need for further sepsis evaluation and supports timely intervention and management.<sup>[14]</sup> qSOFA scores in this study were derived from retrospectively recorded data.

A qSOFA score of 0-1 generally indicates a lower risk of adverse outcomes related to sepsis, suggesting that patients may not exhibit significant organ dysfunction and are typically considered to have a milder form of illness. Conversely, a score of 2 or higher signifies a higher mortality risk and suggests significant organ dysfunction, indicative of more severe sepsis or septic shock; such patients usually require more intensive monitoring and intervention.<sup>[15]</sup> Table 1 summarizes the qSOFA scoring system and associated severity.

### Design of the Groups

In this study, qSOFA scores were retrospectively calculated from the hospital data system for all patients (a total of 89) included in the study. Patients were classified into two groups. The first group (Group 1) included FG patients with a qSOFA score of 0-1, while the second group (Group 2) comprised FG patients with a qSOFA score of 2 or higher. Among the 89 patients, 55 were classified into Group 1 (qSOFA score of 0-1), accounting for approximately 61.8% (55/89), while 34 were classified into Group 2 (qSOFA score of  $\geq 2$ ), representing about 38.2% (34/89). We compared the demographic characteristics, mortality rates, laboratory findings, and FGSI scores between the groups.

### Statistical Analysis

Statistical evaluations were conducted using SPSS software (IBM version 21, NY, USA). Continuous variables were expressed as mean, standard deviation, median, and interquartile range, depending on normal distribution. Categorical variables were reported as frequencies and percentages.

Comparisons between groups were made using the Student's t-test or Mann-Whitney U test for continuous variables, and the chi-square test or Fisher's exact test for categorical variables. Univariate and multivariate logistic regression analyses were applied to identify independent predictors of mortality among patients. A p-value of less than 0.05 was considered statistically significant.

A post hoc power analysis was performed based on the primary outcome of mortality. Using a two-sided alpha of 0.05 and an observed effect size (Cohen's  $d=0.65$ ), the statistical power was calculated to be 82%, indicating that the sample size ( $n=89$ ) was sufficient to detect meaningful differences between the two qSOFA groups. A minimum of 33 patients per group was required to achieve adequate power. Receiver Operating Characteristic (ROC) curve analysis was also conducted to assess the predictive performance of selected parameters for mortality. The area under the curve (AUC), optimal cut-off values, sensitivity, and specificity were calculated.

## RESULTS

A total of 89 patients were included in this study. Among these patients, 55 were classified into Group 1 (qSOFA score 0-1), accounting for approximately 61.79% (55/89), while 34

were classified into Group 2 (qSOFA score  $\geq 2$ ), representing about 38.31% (34/89).

### Demographic Characteristics

In Group 1, the average age was approximately 50.43 years (standard deviation [SD]  $\pm 5.12$ ), whereas in Group 2 it was around 60.25 years (SD  $\pm 6.87$ ), indicating a statistically significant difference between the two groups ( $p<0.05$ ). Each group included one female patient, representing approximately 1.82% (1 out of 55) in Group 1 and 2.94% (1 out of 34) in Group 2. The average number of comorbidities in Group 2 (qSOFA score 2 or more) was  $2.1 \pm 0.7$ , compared to  $1.2 \pm 0.5$  in Group 1 (qSOFA score 0-1), with this difference being statistically significant ( $p<0.05$ ). The most common comorbidities in Group 2 were diabetes mellitus (25%), chronic kidney disease (18%), and urethral stricture (15%). In contrast, these comorbidities were less prevalent in Group 1, with diabetes in 10% of patients, chronic kidney disease in 5%, and urethral stricture in 3%. The demographic characteristics of the patients are summarized in Table 2.

### Perioperative Outcomes and Laboratory Findings

The mean respiratory rate in Group 2 (qSOFA score 2 or more) was  $25.3 \pm 3.1$ , compared to  $18.5 \pm 2.0$  in Group 1 (qSOFA score 0-1), and this difference was statistically significant.

**Table 1.** Criteria and scoring for the quick Sequential Organ Failure Assessment (qSOFA)

Criterion	Description	Score
Altered mental status	Glasgow Coma Scale score less than 15 or confusion	1
Respiratory rate $\geq 22$ breaths/min	Respiratory rate of 22 breaths per minute or greater	1
Systolic blood pressure $\leq 100$ mmHg	Systolic blood pressure of 100 mmHg or lower	1
Total qSOFA score	0-3 points; a score of 2 or higher indicates increased mortality risk	0-3

qSOFA: Quick Sequential Organ Failure Assessment. A score of 2 or higher indicates the need for further evaluation and timely intervention for sepsis.

**Table 2.** Demographic characteristics

Characteristic	Group 1 Group 1 (qSOFA 0-1)	Group 2 Group 2 (qSOFA $\geq 2$ )	p-value
Number of patients	55/89 (61.79%)	34/89 (38.31%)	<0.05
Age	50.43 $\pm$ 5.12	60.25 $\pm$ 6.87	<0.05
Female patients (%)	1/55 (1.82%)	1/34 (2.94%)	-
Number of comorbidities	1.2 $\pm$ 0.5	2.1 $\pm$ 0.7	<0.05
Comorbidities			
Diabetes mellitus	10%	25%	
CKD	5%	18%	-
Urethral stricture	3%	15%	

qSOFA: Quick Sequential Organ Failure Assessment; CKD: Chronic kidney disease.

**Table 3.** Perioperative outcomes and laboratory findings

Characteristic	Group 1 (qSOFA score 0-1)	Group 2 (qSOFA score ≥2)	p-value
Respiratory Rate (breaths/min)	18.5±2.0	25.3±3.1	<0.05
WBC Count (×10 <sup>9</sup> /L)	14.5±2.0	15.8±1.8	0.78
Procalcitonin (ng/mL)	1.5±0.8	5.2±1.5	<0.05
CRP (mg/L)	115.0±20.0	125.0±22.5	0.43
FGSI Score	4.8±1.3	9.6±2.2	<0.05
Length of Hospital Stay (days)	16.0±3.5	34.0±6.2	<0.05

qSOFA: Quick Sequential Organ Failure Assessment; WBC: White blood cell count; CRP: C-reactive protein; FGSI: Fournier Gangrene Severity Index.

**Table 4.** Multivariate logistic regression analysis

Characteristic	Group 1 (qSOFA score 0-1)	Group 2 (qSOFA score ≥2)	Adjusted OR	p-value
FGSI Score	4.8±1.3	9.6±2.2	OR: 1.45 (95% CI: 1.25-1.68)	<0.05
Number of Comorbidities	1.2±0.5	2.1±0.7	OR: 1.30 (95% CI: 1.05-1.62)	<0.05
Procalcitonin (ng/mL)	1.5±0.8	5.2±1.5	OR: 2.10 (95% CI: 1.70-2.70)	<0.05
qSOFA Score	1.0±0.7	2.5±0.5	OR: 3.00 (95% CI: 1.80-4.90)	<0.05

qSOFA: Quick Sequential Organ Failure Assessment; OR: Odds ratio; FGSI: Fournier Gangrene Severity Index.

cant ( $p<0.05$ ). The mean white blood cell (WBC) count was  $15.8\pm1.8$  in Group 2 and  $14.5\pm2.0$  in Group 1, showing no statistically significant difference ( $p=0.78$ ). Procalcitonin levels were  $5.2\pm1.5$  in Group 2 and  $1.5\pm0.8$  in Group 1, with a significant difference ( $p<0.05$ ). CRP levels were  $125.0\pm22.5$  in Group 2 and  $115.0\pm20.0$  in Group 1, indicating no significant difference ( $p=0.43$ ). FGSI scores were significantly higher in Group 2 ( $9.6\pm2.2$ ) compared to Group 1 ( $4.8\pm1.3$ ) ( $p<0.05$ ). The mean length of hospital stay was also significantly longer in Group 2 (qSOFA score 2 or more) at  $34.0\pm6.2$  days compared to Group 1 (qSOFA score 0-1) at  $16.0\pm3.5$  days ( $p<0.05$ ). The perioperative outcomes are summarized in Table 3.

**Mortality Rates**

Nineteen of the 89 patients died despite undergoing surgical debridement and receiving broad-spectrum antibiotic therapy, corresponding to an overall mortality rate of 21.35%. In Group 1, seven patients died, resulting in a mortality rate of approximately 12.73% (7 out of 55 patients). In Group 2, 12 patients died, corresponding to a mortality rate of approximately 35.29% (12 out of 34 patients). Statistical analysis in-

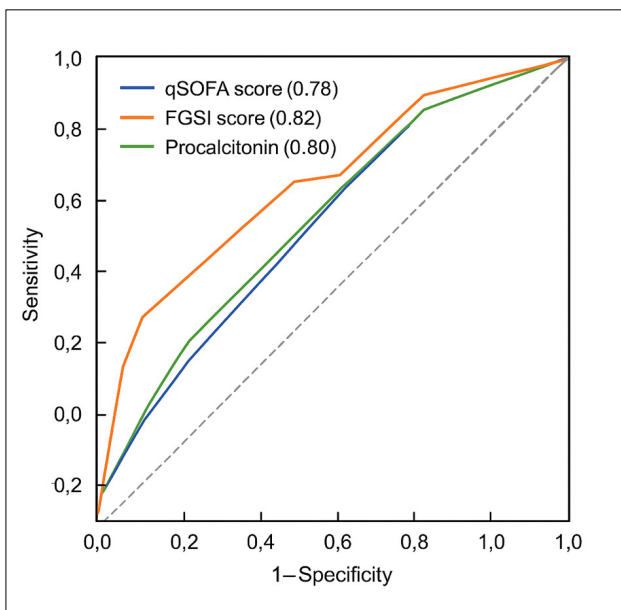
dicated a significant difference in mortality rates between the two groups, with Group 2 exhibiting a higher mortality rate than Group 1 ( $p<0.05$ ). Univariate analysis revealed that age was significantly associated with mortality, with patients over 60 years showing higher mortality rates ( $p<0.05$ ). Higher FGSI scores were also significantly correlated with increased mortality ( $p<0.05$ ). The presence of multiple comorbidities, particularly in patients with diabetes mellitus, chronic kidney disease, and urethral stricture, was linked to higher mortality ( $p<0.05$ ). Furthermore, elevated procalcitonin levels were significantly associated with mortality ( $p<0.05$ ). A qSOFA score of  $\geq 2$  was also significantly associated with increased mortality ( $p<0.05$ ).

In multivariate logistic regression analysis, age was no longer a significant predictor of mortality. However, higher FGSI scores were linked to an increased mortality, with an adjusted odds ratio (OR) of 1.45 (95% confidence interval [CI]: 1.25-1.68,  $p<0.05$ ). The presence of comorbidities also contributed to mortality, with an adjusted OR of 1.30 (95% CI: 1.05-1.62,  $p<0.05$ ). Elevated procalcitonin levels significantly increased

**Table 5.** Receiver Operating Characteristic (ROC) analysis of quick Sequential Organ Failure Assessment (qSOFA), Fournier Gangrene Severity Index (FGSI), and procalcitonin for mortality prediction

Parameter	Cut-off	AUC	95% CI	Sensitivity (%)	Specificity (%)
qSOFA	≥2	0.78	0.68-0.88	75	72
FGSI	≥7	0.82	0.74-0.91	78	75
Procalcitonin	≥3.5 ng/mL	0.80	0.70-0.89	73	70

qSOFA: Quick Sequential Organ Failure Assessment; FGSI: Fournier Gangrene Severity Index.

**Figure 1.** Receiver Operating Characteristic (ROC) curves of quick Sequential Organ Failure Assessment (qSOFA), Fournier Gangrene Severity Index (FGSI), and procalcitonin for predicting mortality in patients with Fournier's gangrene.

mortality risk, with an adjusted OR of 2.10 (95% CI: 1.70-2.70,  $p < 0.05$ ). Finally, a qSOFA score of  $\geq 2$  was associated with an adjusted OR of 3.00 (95% CI: 1.80-4.90,  $p < 0.05$ ). The multivariate analyses are summarized in Table 4.

### ROC Curve Analysis

Receiver Operating Characteristic curve analysis was performed to evaluate the discriminative ability of the qSOFA score, FGSI score, and procalcitonin levels in predicting mortality. The qSOFA score demonstrated an AUC of 0.78 (95% CI: 0.68–0.88), indicating good predictive performance. The FGSI score showed an AUC of 0.82 (95% CI: 0.74–0.91), and procalcitonin levels yielded an AUC of 0.80 (95% CI: 0.70–0.89). The optimal cut-off values were identified as qSOFA  $\geq 2$ , FGSI  $\geq 7$ , and procalcitonin  $\geq 3.5$  ng/mL, with sensitivities and specificities above 70% for each parameter (Table 5, Fig. 1). These results suggest that all three parameters are valuable predictors of mortality in FG patients.

## DISCUSSION

In our study, we investigated the prognostic value of the qSOFA score in relation to mortality rates among critically ill patients. With a total of 89 cases, our findings revealed a significant correlation between higher qSOFA scores and increased mortality, supporting the hypothesis that qSOFA is a valuable prognostic tool in clinical settings. Our results indicated that the overall mortality rate was 21.35%, with a stark contrast between the two groups: Group 1 (qSOFA score 0-1) had a mortality rate of 12.73%, while Group 2 (qSOFA score 2 or more) exhibited a much higher mortality rate of 35.29%. This significant difference ( $p < 0.05$ ) underscores the predictive power of the qSOFA score and demonstrates its effectiveness in stratifying patients according to risk of death.

The statistical analysis further highlighted important clinical variables associated with mortality. Age emerged as a significant factor, with patients over 60 years old showing a higher mortality rate ( $p < 0.05$ ). This finding aligns with existing literature that emphasizes the increased vulnerability of older patients to adverse outcomes, particularly in the context of critical illness.<sup>[16]</sup> Similarly, higher FGSI scores were significantly correlated with mortality rates ( $p < 0.05$ ), affirming the relevance of this scoring system in assessing illness severity.<sup>[17]</sup> Despite the relevance of the FGSI in assessing the severity of illness, it has several limitations. One major concern is its reliance on subjective clinical judgments, which can introduce variability and potential bias in scoring. Additionally, the FGSI may not adequately capture the nuances of multi-organ dysfunction, as it primarily focuses on functional status rather than underlying pathophysiological processes. The delayed availability of laboratory-dependent results can also affect timely assessment, which may reduce the effectiveness of the FGSI. Lastly, its applicability across diverse patient populations and clinical settings remains a subject of ongoing research, which may limit its generalizability.<sup>[10]</sup> Although our primary objective was not to directly compare qSOFA with FGSI, a reference scoring system was needed to objectively evaluate the predictive performance of qSOFA. FGSI is one of the most commonly used and validated scoring systems for predicting mortality in FG. Therefore, FGSI was selected as a benchmark for statistical comparison. However, despite its



widespread use, FGSI relies on laboratory parameters, which may limit its practicality in urgent clinical settings. In contrast, qSOFA can be applied more rapidly at the bedside, offering a practical advantage in emergency evaluations.

Biomarkers also emerged as significant predictors of mortality in our study. Elevated procalcitonin levels were significantly associated with increased mortality ( $p<0.05$ ). However, procalcitonin shares similar limitations with FGSI: as a laboratory-dependent test, it may not always be readily available during the initial stages of emergency assessment.<sup>[18]</sup> The most significant impact of our study is that it underscores the importance of qSOFA as a prognostic indicator during the initial emergency encounter.

The presence of comorbidities also played a crucial role in determining patient outcomes. In Group 2, the average number of comorbidities was  $2.1\pm0.7$ , while Group 1 had a lower average of  $1.2\pm0.5$ . The most common comorbidities in Group 2 were diabetes mellitus (25%), chronic kidney disease (18%), and urethral stricture (15%). This finding aligns with literature that has established a link between multiple comorbidities and increased mortality, particularly in patients with critical conditions.<sup>[19]</sup>

In our study, multivariate logistic regression analysis yielded additional insights into mortality predictors. Although age did not remain a significant predictor, higher FGSI scores continued to correlate with increased mortality, with an adjusted OR of 1.45 (95% CI: 1.25-1.68,  $p<0.05$ ). The presence of comorbidities was also associated with an adjusted OR of 1.30 (95% CI: 1.05-1.62,  $p<0.05$ ), and elevated procalcitonin levels showed an adjusted OR of 2.10 (95% CI: 1.70-2.70,  $p<0.05$ ). Most notably, a qSOFA score of  $\geq 2$  was linked to an adjusted OR of 3.00 (95% CI: 1.80-4.90,  $p<0.05$ ). This underscores the potential of qSOFA as a critical marker for predicting mortality in critically ill patients.

Although a limited number of studies have examined the correlation between qSOFA scores and mortality, many had limitations related to sample size, patient diversity, and the range of clinical factors considered.<sup>[12,13,20]</sup> In a recent study, the authors, similar to our study, divided participants into two groups based on qSOFA scores: high qSOFA (2-3) and low qSOFA (0-1). Both studies also evaluated the prognostic value of qSOFA score by comparing it with FGSI.<sup>[12]</sup> Warli et al.<sup>[13]</sup> focused on the combined use of FGSI and qSOFA scores and further analyzed microbiological culture results and infectious agents in relation to mortality. By contrast, our study also examined the association of clinical variables and biomarkers with mortality, offering a more comprehensive assessment of FG patients. Compared to the study by Arıkan et al.<sup>[20]</sup> however, our sample size was smaller, which could limit the generalizability of our findings. However, in our study, qSOFA scores were clearly categorized into two groups (0-1 and  $\geq 2$ ) for analysis. Additionally, clinical features, comorbidities, and biomarkers such as procalcitonin were

comprehensively evaluated to provide a more holistic assessment of the prognostic value of qSOFA.

The most significant advantage and contribution of the present study is its focus on the prognostic value of qSOFA scores and their relationship with mortality rates. The significant findings related to qSOFA scores and mortality rates contribute to the growing body of evidence supporting the implementation of qSOFA as a standard assessment tool in clinical practice. By enhancing early detection of at-risk patients, healthcare providers can facilitate prompt interventions and ultimately improve patient outcomes. Integrating qSOFA scores into routine evaluations may enhance risk stratification and guide treatment decisions, aligning with best practices in critical care management.

Nonetheless, our study has several limitations. First, the retrospective design introduces inherent bias and limits the ability to establish causality. Second, the relatively small sample size reduces statistical power and may restrict the generalizability of the findings to broader populations. Despite these limitations, the study provides valuable preliminary insights into the utility of the qSOFA score in FG patients, and our results support the need for larger, prospective studies to validate these findings.

In conclusion, our study demonstrated that the qSOFA score is a simple, rapid, and reliable predictor of mortality in critically ill patients with FG. The findings support its use for early risk assessment and for guiding timely clinical interventions in practice. Future larger, prospective studies are recommended to validate these results.

**Ethics Committee Approval:** This study was approved by the Etlik City Hospital Ethics Committee (Date: 29.01.2025, Decision No: AEŞH-BADEK-2024-1215).

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## ORIJİNAL ÇALIŞMA - ÖZ

### Fournier gangreni hastalarında acil cerrahide mortaliteyi öngörmeye qSOFA skorunun kullanılabilirliği

**AMAÇ:** Bu çalışmanın amacı, Fournier gangreni hastalarında qSOFA skorunun mortalite riskini tahmin etmedeki değerini değerlendirmek ve erken klinik karar verme sürecine yardımcı olacak basit bir araç sunmaktır.

**GEREK VE YÖNTEM:** Bu retrospektif çalışmaya, 2022 ile 2024 yılları arasında Fournier gangreni nedeniyle acil debridman uygulanan hastalar dahil edilmiştir. Perianal ve inguinal kanalın sistemik tutulumu olan hastalar çalışmaya alınmıştır. Klinik parametreler, laboratuvar bulguları, FGSI skorları ve mortalite ile hastanede kalış süresi gibi sonuçlar analiz edilmiştir. Hastalar qSOFA skoruna göre iki gruba ayrılmıştır: Grup 1 (qSOFA 0-1) ve Grup 2 (qSOFA  $\geq 2$ ). Mortaliteyi etkileyen bağımsız değişkenleri belirlemek amacıyla univaryant ve multivaryant lojistik regresyon analizleri yapılmıştır.

**BULGULAR:** Toplam 89 hastanın 55'i Grup 1'de, 34'ü Grup 2'de yer almıştır. Genel mortalite oranı %21.35 olarak bulunmuştur (Grup 1: %12.73; Grup 2: %35.29;  $p < 0.05$ ). Yaş, komorbiditeler, solunum hızı, prokalsitonin düzeyleri, FGSI skorları ve hastanede kalış süresi açısından gruplar arasında anlamlı farklar saptanmıştır ( $p < 0.05$ ). Univaryant analizde yaş, FGSI skoru, komorbiditeler ve prokalsitonin mortalite ile ilişkili bulunmuştur. qSOFA skoru  $\geq 2$  olan hastalarda mortalite oranı anlamlı şekilde daha yüksek olup ( $p < 0.05$ ), multivaryant analizde bu skor bağımsız bir mortalite belirleyicisi olarak saptanmıştır (OR: 3.00;  $p < 0.05$ ).

**SONUÇ:** qSOFA skoru, Fournier gangreni hastalarında mortaliteyi öngörmeye basit ve güvenilir bir göstergedir. Bu nedenle erken risk değerlendirmesi ve zamanında klinik müdahalelerin yönlendirilmesinde kullanılabilir.

**Anahtar sözcükler:** Fournier gangreni; mortalite tahmini; prognostik araç; sepsis; qSOFA skoru.

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