

Infections



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Outcome management of Fournier's gangrene cases at tertiary hospital: 7 Years experience

Soetojo Wirjopranoto nad Yufi Aulia Azmi

Abstract

Objective: This study aims to describe the condition of Fournier's gangrene in Dr. Soetomo General Hospital from January 2014 to December 2020.

Material and methods: This study used a retrospective analytic design, by taking data through medical records at Dr. Soetomo General Hospital from January 2014 to December 2020. This study used total sampling with recorded data: age, gender, length of stay, outcome, location, comorbidities, causes, management, culture results, and Fournier's gangrene severity index (FGSI) score.

Result: Of the 135 subjects collected, it was found that 55.56% were individuals over 50 years of age. About 91.11% were male patients, with some sites being in the scrotum 50.37%. Only 25.19% of patients had no comorbids, while the rest had a history of CKD, hypertension, diabetes, or a combination of these diseases. Bacterial cultures obtained were mostly caused by the Enterobacteriaceae bacteria group (32.59%). Of the subjects we studied who experienced mortality, it was found that all were from the group with FGSI >9.

Conclusion: From the results of our descriptive study, at a glance, it appears that there is a tendency for the incidence of Fournier's gangrene in the elderly and individuals with comorbidities. And the mortality rate increases with a high FGSI value. So that FGSI could be used as a predictor of mortality in patients with FG.

Keywords

Fournier, infection, scrotum, epidemiology, gangrene

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Introduction

Fournier's gangrene was first discovered by Dr. Alfred Fournier with a clinical presentation resembling necrotizing fascitis in the external genitalia and perineum. The characteristic feature of Fournier's gangrene which is difficult to detect is inflammation that occurs in the subdermic area and fascia so that it does not show surface manifestations. The fascia that can be involved in this infection ranges from the fascia of Dartos, Colles, and even Scarpa. Due to the deep location, some doctors often make the wrong diagnosis.¹

Epidemiology

Fournier's gangrene has an annual incidence of 1.6 cases in 100,000 men, and the largest incidence age is between 50 and 70 years. Fournier gangrene is more common in men than in women with a ratio of 10:1.² Several studies

stated that the incidence of FG 95% accompanied by comorbids can be in the form of infectious diseases of the anorectal or genitals. One of the diseases that has increased in recent years is diabetes mellitus, which has been shown to play a role in the incidence of FG.³

Risk factor and predisposing factor

Other study stated that 95% of all cases of FG have predisposing factors that support the occurrence of FG.³ The risk

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Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author

This paper is an interesting retrospective analytic study on 135 cases of Fournier's gangrene, collected during 7 years.

Fournier gangrene severity index (FGSI) should be given in materials and methods.

The AA state in their introduction that "95% of all cases of FG have predisposing factors". However, in their study, 25% of the patients had no comorbidities. This is a high percentage when compared with everyday clinical practice and the AA should comment on that.

Line 44 "only 102 (75.5%) subjects"..... "only" seems inappropriate.

Page 5, line 11 "From the results of the comparative test, it was found that there was no relationship between culture results and treatment outcomes with p = 0.404"

This sentence (and Table 11) is misunderstanding: negative or positive colture did not influence the outcome or the microbiologic agent found at colture had no influence on treatment outcome?

Data of Tables 1-2, 7-8 and 11-13 can be summarized in a 3 tables.

Did the AA adopt hyperbaric treatment in any patient? Tables should be re-organized References are satisfactory

Reviewer: 2

Comments to the Author

The authors aimed to describe their experience regarding the treatment of a large cohort of patients affected by urogenital Fournier's Gangrene. The manuscript is not original and does not include significant novelties in terms of treatment methods.

In particular some aspects regarding surgical therapies should be included in the text and the tables.

The number of tables is redundant and the Reference list should be updated.

The Abstract paragraph does not include a clear take home message except for the correct interpretation of each of the cases described when based on the FGFI score.

As a consequence the title of the manuscript seems to be inappropriate and should be re-written



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