

# Urogenital Symptoms Affecting Diagnosis and Prognosis of Covid-19

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## Abstract:

**Aim: 1-review effect of covid-19 on the urogenital system and how it helps in the diagnosis of patients with no typical covid-19 symptoms**

**2-role of some urogenital symptoms and comorbidities in predicting susceptibility, prognosis, and severity of covid-19 patients**

**Keywords:-** Urogenital, Covid-19, LUTS, BPH, Cystitis, Frequency.

## I. INTRODUCTION

The coronavirus 2019 (covid-19) pandemic is one of the hardest challenges of the medical world nowadays as it keeps presenting with a different clinical picture now and then.

Compared to when it first started in Wuhan, China in December 2019 with mainly respiratory symptoms, fever, dry cough, and tiredness, the list of symptoms is growing rapidly to include other systems, for example, gastrointestinal symptoms such as loss of appetite, nausea, vomiting, and diarrhea. It also includes some unexpected symptoms like anosmia and ageusia.

Recently, covid-19 was strongly related to some urogenital symptoms including urinary frequency, hematuria, and painful micturition.

It was also noted that older patients with some urogenital comorbidities such as chronic kidney disease, and urogenital malignancies are more susceptible to being affected with covid-19 in addition to a worse prognosis.

Also, patients with age-related benign prostatic hyperplasia with LUTS were found to have a worse covid-19 prognosis, longer hospital stay, and more frequent ICU admission.

## II. COVID-19 ASSOCIATED WITH LUTS.

One of the most interesting symptoms is the increased urinary frequency in patients with covid-19 according to a case study. After covid-19 patients in the study were excluded from urinary tract infection, acute kidney injury, and prostatitis, however; they suffered from LUTS mainly frequency 1st noticed when they were first diagnosed with Covid-19 and they continue to suffer from it during their stay in the hospital. Not only LUTS were proved to be one of the overlooked symptoms of covid-19, but also they were discovered to be one of the earliest symptoms as well.

The cause of LUTS accompanying covid-19 infection is still unclear, but some possible causes were found such as 1-de Novo covid-19 associated cystitis (CAC) which may be due to increase urine cytokines as a result of the inflammation, 2-viral infection itself as some viruses can cause LUTS, for example, human immunodeficiency virus (HIV) and human T-cell lymphotropic virus, 3-the depressive mood of covid-19 patients may lead to psychogenic LUTS.

The cough was also one of the possible causes for increased urinary incontinence in covid-19 patients.

So patients with urinary frequency and no other typical covid-19 symptoms may be missed or misdiagnosed as urosepsis if accompanied by fever. That's why we have to keep in mind these symptoms and their relationship with covid-19.

### ➤ Prognosis

Some comorbidities were strongly related to increase susceptibility of covid-19 infection including chronic lung diseases, hypertension, and diabetes mellitus, but some urogenital comorbidities should be considered as well Older patients with benign prostatic hyperplasia, urogenital malignancies, chronic kidney diseases were detected to be more susceptible to covid-19 infection most probably because of weaker immune system, and when these patients get infected with covid-19, they seem to have more variable symptoms and course of infection.

➤ *BPH & LUTS*

According to a prospective study, patients over 65 years old who were diagnosed with covid-19 were divided into 3 groups mild, moderate, and severe according to their IPSS. It was noted that patients in group 3 (with the highest IPSS) had the longest hospital stay, were admitted more frequently to the ICU, and had the highest mortality rate.

### III. CONCLUSION

Physicians should pay more attention to new urogenital symptoms as urine frequency or prior urogenital comorbidities as BPH, chronic kidney diseases, urogenital malignancies in admitted patients either diagnosed with covid-19 or not and to always consider covid-19 infection in these patients and to always keep your safety measures at its highest all the time.

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