

Case Report

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Two Case Reports about Prostatitis and Penile Edema as Allergic Reaction to Pfizer-Biontech Covid19 Vaccine

Marco Rinaldi^{1*} and Sebastiano Di Lena²

¹Medical Director in Urology at the Western Hospital Unit “San Pio” in Castellaneta (Via del Mercato,1 , Castellaneta, Italy) and Resident of Urology at the University of Bari at the Azienda Ospedaliero-Universitaria Policlinico di Bari (Piazza Giulio Cesare, 11 , Bari, Italy)

²Chief of Urology at the Western Hospital Unit “San Pio” in Castellaneta (Via del Mercato,1, Castellaneta, Italy)

ABSTRACT

Penile edema is a condition of fluid accumulation in the intracellular spaces of the penile soft tissues, often associated with sexually transmitted diseases, but can have different causes, such as allergic reactions [1,2].

Prostatitis is an inflammatory condition of the prostate which is classified by the NIH as acute bacterial prostatitis, chronic bacterial prostatitis, chronic non bacterial prostatitis-Chronic Pelvic Pain Syndrome (CPPS) and asymptomatic prostatitis [3]. There are also described, in the scientific literature, cases of allergic prostatitis [4].

We report the clinical case of a prostatitis and penile edema as allergic reaction to Pfizer-BioNTech COVID19 vaccine for which there is still insufficient scientific literature.

*Corresponding author

Marco Rinaldi, Medical Director in Urology at the Western Hospital Unit “San Pio” in Castellaneta (Via del Mercato,1 , Castellaneta, Italy) and Resident of Urology at the University of Bari at the Azienda Ospedaliero-Universitaria Policlinico di Bari (Piazza Giulio Cesare, 11 , Bari, Italy). Tel: 3460519894; E-mail: marrin91@yahoo.it

Received: August 17, 2022; **Accepted:** August 19, 2022; **Published:** August 26, 2022

Keywords: Prostatitis, Penile Edema, Allergic Reaction, Pfizer-BioNTech COVID19 Vaccine

Case Presentation

Case 1: A 28 years old patient, who weighs 80 kg and is 183 cm tall. The physiological history reveals that he was born from a premature caesarean section, with physiological development, he has normal appetite, normal alvo, does not drink alcohol and does not smoke cigarettes. The family history reports that he has no children, father and mother alive, in good general conditions.

There is nothing known in the past medical history except for an allergic syndrome which includes, as triggers, pollen, peach and various antibiotics (levofloxacin, cefixime, amoxicillin, ceftriaxone, clarithromycin). The type of allergic manifestations includes rhinitis and conjunctivitis.

Surgical history reveals bilateral inguinal hernioplasty in 1993, circumcision in 2001, surgical nasal septoplasty because of nasal septal deviation in 2018.

On June 17, 2021 he received the first dose of the Pfizer-BioNTech COVID19 vaccine and showed moderate allergic symptoms, including conjunctivitis and lingual edema, which resolved conservatively after few hours.

The patient told about his urological clinical history which started three days after the administration of the first dose of Pfizer-BioNTech COVID19 vaccine (received on June 17, 2021) after which he noticed stranguria, dysuria, suprapubic pain and penile edema and, because of worsening of the symptomatology in the following days, he went to the emergency room of our hospital (“San Pio” hospital in Castellaneta) and came to our observation (on June 30, 2021) to have urological consultation.

The patient did not report abnormal urethral secretions and denied sexual intercourse of any kind, neither sexual practices with infectious risk in the last month before accessing to the emergency room.

In addition, the patient reported that he had not received any type of therapy after the administration of the vaccine, which would explain an allergic reaction from another cause.

The general physical examination showed no significant alterations: good general conditions, rhythmic pulse, eupnoic breathing, not painful abdomen, no masses found out at palpation and a bilaterally negative Giordano’s sign.

On physical examination of the external genitalia we observed a widespread penile edema, absence of skin lesions and urethral secretions when the urethra is squeezed.

On digital rectal exploration we palpated reduced consistency (edematous) and painful prostate.

We also performed suprapubic bladder ultrasound which showed partially repleted bladder, free from bladder parietal changes and absence of post-voiding residue. At suprapubic ultrasound, the prostate impression was within the maximum limit of the normal size (28 cc), but with a hypoechoic (edematous) appearance.

We also performed penile ultrasound which showed edema of the soft tissues of the penis.

At blood chemistry tests we did not find out alterations, except an increase in eosinophils in the blood count.

Because of suspicion of prostatitis and penile edema on allergic basis, we set up oral therapy with antihistamine and cortisone, associated with suppositories with local anti-inflammatory function.

After four days of therapy, the patient showed complete resolution of the symptoms (pelvic pain and LUTS) and penile edema.

To digital rectal exploration the prostate recovered its normal consistency, without pain.

About twelve months after the end of therapy, the patient had not relapse of the symptoms described above.

Case 2: A 39 years old patient, who weighs 77 kg and is 175 cm tall. The physiological history reveals that he was born in an eutocic delivery, with physiological development, he has normal appetite, normal alvo, does not drink alcohol and does not smoke cigarettes. The family history reports that he has no children, father and mother alive, in good general conditions.

In the past medical history is known an allergic syndrome which includes, as trigger an antibiotic (amoxicillin). The type of allergic manifestations includes skin rush. He has not a surgical history.

On July 10, 2021 he received the first dose of the Pfizer-BioNTech COVID19 vaccine and showed moderate allergic symptoms, including skin itching, which resolved conservatively during the day.

The patient told about his urological clinical history which started two days after the administration of the first dose of Pfizer-BioNTech COVID19 vaccine (received on July 10, 2021) after which he noticed stranguria, perineal pain and penile edema and, because of persistence of the symptomatology, he had an urological visit.

The patient reported a transparent urethral discharge and denied sexual intercourse of any kind, neither sexual practices with infectious risk in the last 20 days before having medical examination.

The patient reported that he had not received any type of drug after the administration of the vaccine.

The general physical examination showed only a mild pain tapping lower abdomen.

On physical examination of the external genitalia we observed a moderate penile edema, but absence of skin lesions.

On digital rectal exploration we palpated reduced consistency (edematous) and a moderate painful prostate.

We also performed suprapubic bladder ultrasound which showed partially repleted bladder, free from bladder parietal alterations and absence of post-voiding residue. At suprapubic ultrasound, the prostate impression was within the limit of the normal size (23 cc), but with a hypoechoic appearance.

We also performed penile ultrasound which showed moderate edema of the soft tissues of the penis.

We administered oral therapy with antihistamine and cortisone, associated with suppositories with local anti-inflammatory function.

After three days of therapy, the patient showed complete resolution of the symptoms (perineal pain and stranguria) and penile edema.

To digital rectal exploration the prostate recovered its parenchymatous consistency, without pain.

About eleven months after the end of therapy, the patient had not relapse of the symptoms.

Discussion

There is still insufficient literature, but there are several documented cases of allergic reactions to the pfizer vaccine and none of them with the manifestations reported by the cases described. Therefore these clinical cases are a contribution to the current literature and they may represent a model of diagnosis and treatment of similar cases [5].

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