

ACUTE VULVAR ABSCESS – A RARE COMPLICATION FOLLOWING COVID-19 VACCINATION

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BACKGROUND

A wide variety of systemic and cutaneous manifestations have been reported following COVID-19 vaccination¹. The association between COVID-19 vaccination and the development of vulvar aphthous ulcers has previously been described in the literature. Here we describe an atypical presentation of a vulval abscess following Pfizer-BioNTech COVID-19 vaccination in an adolescent girl.

CASE REPORT

A 12-year-old girl presented to the Emergency Department with a 2-day history of progressive vulval pain, swelling, and dysuria. Her symptoms began four days after receiving the Pfizer-BioNTech COVID-19 booster and were preceded by viral prodromal symptoms. Her medical history was unremarkable. She denied any history of sexual activity, trauma or hair removal including shaving.

On admission, her observations were within normal limits. Physical examination revealed a 4 cm by 2 cm tender, fluctuant mass and a concomitant 1 cm shallow, punched-out lesion involving the right labia majora. Her blood tests and inflammatory markers were unremarkable. Due to the severity of her symptoms, she underwent incision and drainage of the vulvar abscess on the day of her admission.

Intra-operative swabs for bacterial culture, Chlamydia trachomatis and Neisseria gonorrhoeae PCR and Herpes simplex virus PCR and serology were negative. Unfortunately, no PCR tests were performed on the abscess for COVID-19. She was treated with IV cefazolin and metronidazole for 24 hours and discharged home on Day 2 with a seven-day course of antibiotics. She was advised regular sitz baths, paracetamol, and ibuprofen for symptomatic relief. The patient was reviewed in the outpatient clinic two weeks later and reported complete resolution of her symptoms.

DISCUSSION

COVID-19 vaccination is associated with several systemic and cutaneous manifestations. Common side effects include maculopapular rashes and urticarial eruptions¹. However, there exists a growing body of literature on the development of necrotic lesions following COVID-19 vaccination, notably vulvar aphthous ulcers². Vaccine-associated genital ulcers typically present as well-demarcated, punched-out lesions affecting the labia minora. These lesions are self-limiting and typically resolve without treatment³. Our case describes a distinct clinical entity of a vulval abscess which to our knowledge, has not been reported previously.

The association between COVID-19 vaccination and the development of sterile breast abscesses have been described in the literature. Akin et al⁴ reported a 32-year-old female who developed a breast abscess requiring incision and drainage two days following her second dose of Pfizer-BioNTech COVID-19 vaccination.

Although the aetiology and pathogenesis of the vulvar abscess described in our report are uncertain, given the short time frame between vaccination and the onset of symptoms, there may be a possible link between the two. Clinicians should consider vulvar abscesses as a possible manifestation of COVID-19 vaccination.

CONCLUSION

This case report describes an association between COVID-19 vaccination and the development of a vulval abscess in an adolescent girl. Further research is needed to identify other cases of abscess formation following Pfizer-BioNTech COVID-19 vaccination as well as other vaccine formulations.

This case report adds to the growing body of literature on side effects of COVID-19 vaccination which will allow clinicians to be better equipped to counsel patients should symptoms occur.

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