# Symmetrical drug-related intertriginous and flexural exanthema like eruption after COVID-19 vaccine

**To the Editor,**

Baboon syndrome (BS) is a systemic contact dermatitis characterized by an erythema in inguinal and perianal areas with exanthema in other flexural areas. The noncontact allergic variant of BS is referred as symmetrical drug-related intertriginous and flexural exanthema (SDRIFE) 1.We report two cases of SDRIFE-like eruption occurring after COVID-19 vaccine.

**Case 1:** A 52-year-old woman, presented with a skin eruption which appeared five days after the second injection of SARS-CoV-2 Pfizer-BioNTech mRNA vaccine. She well tolerated the first dose. She presented a sharply demarcated erythema of the inferior cervical folds, axillae and gluteal area (Figure 1). No systemic symptoms were found. There was no use of drugs or herbal products in her history. SARS-CoV-2 PCR test and serology were negative. Viral serological tests were negative. The diagnosis of SDRIFE-like eruption induced by Pfizer-BioNTech vaccine was retained. Patch tests performed, five weeks after spontaneous resolution of lesions, both on healed and normal skin with pure Pfizer-BioNTech vaccine prepared less than 4 hours in 0.9% saline before, were negative at day (D)3 and D5. Prick test with Pfizer-BioNTech vaccine was negative at immediate and delayed readings (D1, D3, and D5). Intradermal test (IDT) with this vaccine diluted at 1/10 in 0.9% saline was performed. The immediate reading at 20 minutes was negative, the delayed readings at 10 hours, D 2 and D3 were all positive (Figure 2).

**Case 2:** A 57-year-old woman consulted with sharp boarded erythematous plaques on the anogenital area, flexural areas of the forearms and inguinal folds. The eruption started 3 days after the second injection of CoronaVac vaccine. She was diabetic using Metformin for 6 years. Except her usual drug, there was no use of new drugs. RT-PCR test for SARS-CoV-2 was negative. Virus infection was excluded by serology. The clinical presentation and history were compatible with the diagnosis of SDRIFE-like eruption induced by CoronaVac vaccine. One month later, the patient underwent epicutaneous tests in previously lesional and nonlesional skin. Prick, IDT and patch tests were negative.

**Discussion:**

We report two cases of SDRIFE like eruption occurring after COVID-19 vaccine (Pfizer-BioNTech and CoronaVac). To our knowledge, there are only two recent reported cases of SDRIFE-like eruption related to COVID-19 vaccines (CoronoVac and AstraZeneca-Oxford) 2,3. SDRIFE is a drug-related type IV hypersensitivity eruption that involves the intertriginous or flexural folds and the gluteal area1. It has been reported in association with beta-lactams, antihypertensives and chemotherapeutic agents1. Its diagnosis is defined by five clinical criteria which were applicable for our two patients except the exposure to a systemically administered drug 1. Pfizer–BioNTech is an mRNA-based COVID-19 vaccine while CoronaVac-Vaccine is an inactivated virus vaccine 4,5. Their most common cutaneous adverse reactions are delayed local reactions and urticarial and morbilliform eruptions 5,6. The SDRIFE-like reaction in our patients could be related to the vaccines or the adjuvants. The adjuvant associated with the Pfizer-BioNTech vaccine is polyethylene glycol (PEG) 2000 7. Patch tests with PEG or polysorbate alone were not performed in our first patient due to the negativity of the patch test with the vaccine. This patient showed positive IDT with the Pfizer-BioNtech vaccine. However, IDT could be positive in healthy patients having received the vaccine while these tests remain negative in non-immunized patients 7. Therefore, we cannot exclude the possibility that our positive IDT was the consequence of a local immune response to the vaccine in this already immunized patient 7. Our second patient had CoronoVac vaccine which contains inactivated SARS CoV-2 antigen, aluminium hydroxide, disodium hydrogen phosphate, monosodium hydrogen phosphate, sodium chloride and sodium hydroxide 2. Cases of BS induced by metals have been reported such as mercury, nickel, cobalt, chromium, zinc and gold 2. . To our knowledge, there are no reported cases of BS related to aluminium 2. Few cases of systemic contact dermatitis to thiomersal in vaccines have been reported 8. CoronoVac and Pfizer-BioNTech vaccines do not contain thiomersal. The etiopathogenic mechanism of the SDRIFE like eruption post vaccine remains to be identified.

**References:**

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**Figure Legends:**

**Figure 1:** Skin eruption on the gluteal area after the second injection of Pfizer-BioNTech mRNA vaccine.

**Figure 2:** Positive intradermal test with BioNTech mRNA vaccine at 10 hours (A), D 2 and D3 (B).

Data sharing not applicable-no new data generated