

**CR13****Case of allergic reaction to polyethylene-glycol from rectal suppositories and its relation to COVID-19 vaccination**Stjepan Brnić<sup>a</sup>, Robert Likić<sup>a,b</sup><sup>a</sup> School of Medicine University of Zagreb<sup>b</sup> Unit for Clinical Pharmacology, Department of Internal Medicine, University Hospital Centre ZagrebDOI: <https://doi.org/10.26800/LV-144-supl2-CR13> Stjepan Brnić 0000-0002-8218-7854, Robert Likić 0000-0003-1413-4862

Keywords: allergy, COVID-19, polyethylene-glycol, vaccination

**INTRODUCTION/OBJECTIVES:** Polyethylene-glycol (PEG) is a compound derived from petroleum with many uses in medicine. Because of its hydrophilic properties, it is commonly found as a basis in several laxatives, but it is also widely used as an excipient in various pharmaceutical products, most notably in the mRNA technology based COVID-19 vaccines. Recent studies have shown that conjugation of PEG to nanoparticles may enhance its immunogenic properties which could explain sporadic cases of postvaccination anaphylaxis to mRNA-based vaccines.

**CASE PRESENTATION:** A 20-year-old male was referred to clinical pharmacologist for a consult regarding safety of COVID-19 vaccination. His past medical history was remarkable for cerebellar developmental venous anomaly, anaphylaxis to wasp sting and an allergic reaction following a rectal suppository (sodium bicarbonate, potassium bicarbonate, polyethylene-glycol; EvaQu®) administration, which manifested with angioedema, muscle spasms, chills and fever. After suspecting polyethylene-glycol was a possible trigger compound for the hypersensitivity reaction, a percutaneous skin test was indicated in order to rule out the PEG hypersensitivity, before an mRNA based COVID-19 vaccine is administered.

**CONCLUSION:** Polyethylene-glycol has recently been identified as a possible cause of anaphylactic reactions to mRNA-based COVID-19 vaccines. Patients with known or suspected hypersensitivity to PEG should not be vaccinated with the mRNA based vaccines before a consultation with an allergologist and evaluation of the need for hypersensitivity testing.

**CR14****ECTOPIC PREGNANCY IN CESAREAN SECTION SCAR**Laura Vidović<sup>a</sup>, Marina Šprem Goldštajn<sup>b</sup><sup>a</sup> School of Medicine, University of Zagreb<sup>b</sup> Department of Obstetrics and Gynecology, School of Medicine, University of Zagreb; Clinic of Gynecology and Obstetrics, University Hospital Petrova ZagrebDOI: <https://doi.org/10.26800/LV-144-supl2-CR14> Laura Vidović 0000-0003-4168-0973, Marina Šprem Goldštajn 0000-0003-1747-204X

Keywords: cesarean section scar, ectopic pregnancy, laparotomy

**INTRODUCTION/OBJECTIVES:** Ectopic pregnancy is a life-threatening condition in which the blastocyst implants anywhere outside of the endometrial lining of the uterine cavity. In most cases the ectopic gestation takes place in fallopian tubes. However, sometimes it could be found in cesarean section scars which can lead to complications such as uterine rupture, life-threatening hemorrhage and hypovolemic shock.

**CASE PRESENTATION:** A 35-year-old woman with a history of a previous cesarean section, presented with severe pain in the epigastric region accompanied with diffuse pain in lower abdomen. The ultrasonography detected a fetal mass within the uterine cavity with an average gestational age of 10 weeks, along with some excess fluid and coagula in the rectouterine space. The patient underwent laparoscopy which discovered a large bleeding located on the previous cesarean section scar. The procedure was converted into lower median laparotomy, removing the ectopic gestation and reconstructing the uterine wall. Within postoperative course, she received 700 mL of erythrocyte concentrate and antibiotics. The 1- and 2-week follow-up showed no further postoperative complications and a continuous fall in serial measurements of beta hCG.

**CONCLUSION:** Although extremely rare, cesarean scar pregnancies represent a severe obstetric condition that should always be considered alongside other types of ectopic pregnancies in a differential diagnosis of a female patient with symptoms of acute abdomen. Making the right diagnosis and initiating prompt clinical treatment is key to reducing the risk of possible complications.