Title: Rare adverse reaction to Nexplanon

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Case Presentation: A 23 y.o. G1P1001 with a past medical history of stage 1A mucinous borderline ovarian tumor presented in clinic for removal of her Nexplanon implant site 42 days after standard placement due to concerns for possible reaction or infection. The patient reported that the site where Nexplanon was placed never healed, and she had noticed escalating pain and discomfort in the area. Of note, the patient had previously utilized Nexplanon previously for 3 years without encountering a similar reaction. However, the patient denied any systemic signs of infection, including fevers, chills or drainage from the site. Upon inspection, the implant site was not fully healed with a scab over the insertion site, and the implant itself was readily visible and protruding from the skin. Approximately 75% of the implant was no longer subdermal. There was also granulation tissue and erythema of the skin around the implant site. Removal of the implant was recommended in office, to which the patient was amenable, and underwent without complication. The patient was also prescribed clindamycin 300 mg three times daily for 7 days for empiric antimicrobial coverage. She initiated Medroxyprogesterone acetate (Depo Provera) injections for contraceptive management. A swab of the implant was sent for bacterial culture, which revealed heavy growth of Methicillin Resistant Staphylococcus Aureus susceptible to clindamycin. At a follow up visit a week later, the wound showed signs of improvement and scab formation with no erythema or discharge. The patient was also without systemic signs of infection. The patient will be followed up with in clinic in 3 months to monitor for continued improvement.

Discussion: Complications at the implant site following Nexplanon placement are exceptionally rare. The Nexplanon Observational Risk Assessment study, which was a thorough investigation of 3663 reported implant-related adverse events, revealed that only 15 cases (0.4%) were attributed to infectious or allergic complications. Furthermore, there are only a few case reports in the existing literature detailing infections or allergic reactions to Nexplanon implants. We were only able to find one other case of infection causing degradation of the skin resulting in the implant being visible. Due to this, there is limited information regarding the presentation and management of infectious or allergic complications following implant placement. While these events are uncommon, it remains crucial for healthcare providers to identify and manage such instances to prevent severe complications in the future.