

Pregnant inflammatory bowel disease patients may require counselling regarding live vaccines in newborns

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Abstract

Inflammatory bowel disease patients are prone to immunosuppression due to effects of their medications. Physicians are recommended to assess vaccination status and overall health in all patients, prior to initiation of immunosuppressive therapy. Immunosuppressant medications in women with inflammatory bowel disease are often continued during pregnancy, which can result in newborns having an increased risk of immunosuppression at birth. While medication-induced immunosuppression in infants is transient, parents should be counselled about delaying live vaccine administration in newborns until they are immune competent. A retrospective study was done over six months at an urban multispecialty medical center to assess whether physicians are counselling pregnant immunosuppressed inflammatory bowel disease patients regarding live vaccinations in their newborns. The study revealed that only 57% of patients had documented counselling in their charts. Further studies are necessary to determine physician counselling practices of pregnant women about live vaccines. It is critical that physicians and patients are aware of the risks of immunosuppression in pregnancy and the potential impact of live vaccines

upon the newborn.

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Key words: Inflammatory bowel disease; Pregnancy; Vaccines

Core tip: International travel increases potential exposure to a variety of infectious agents. Administration of live vaccines may be important when traveling to certain areas. However, live vaccines pose risks for individuals who are immunosuppressed. This letter addresses the importance of counselling pregnant women with inflammatory bowel disease who are pharmacologically immunosuppressed about live vaccines and potential impact upon the newborn.

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TO THE EDITOR

We read with interest the case report authored by Sanchez-Tembleque *et al*^[1] entitled "Vaccines and recommendations for their use in inflammatory bowel disease" which emphasized the importance of physicians analyzing vaccination status in all inflammatory bowel disease (IBD) patients prior to starting immunosuppressive therapy and the recommendation that live vaccines are contraindicated for the first six months in newborns with in utero immunosuppressant exposure. We are in agreement that physicians need to counsel pregnant mothers regarding the risks of live vaccinations in newborns. A report of a fatal outcome after BCG vaccination in a child born to a mother treated with Infliximab for refractory Crohn's em-

phasizes the importance of counseling about live vaccine administration^[2,3]. Several studies have suggested some immune-modulating agents will cross the placenta and can alter the newborn's immune response^[4,5]. While it is critical that infants receive appropriate immunizations, it is paramount that there is physician and patient recognition of the risks of live vaccination in immunosuppressed infants. Acquired neonatal immunosuppression from maternal IBD treatment may be under-recognized.

We conducted a six-month retrospective chart analysis evaluating the frequency of counseling about live vaccine risks in pregnant and post-partum women with inflammatory bowel disease maintained on immunosuppressants. There were no exclusion criteria. Seven patients (6 diagnosed with Crohn's disease and 1 with ulcerative colitis) either pregnant or breast feeding on immunosuppressive therapy were identified. The mean age was 32.3 years (range 22-36 years). There was 1 African American, 4 Caucasian, and 2 patients of unknown race. Five patients were on 6-MP, 1 infliximab, and 1 adalimumab. Four patients (57.14%) had documented discussions with their physician regarding potential effects of immunosuppressive therapy upon pregnancy. However, there were no documented discussions about the risks of live vaccines in a child born to a mother who is pharmacologically immunosuppressed. There was no statistically significant difference in the rate of such discussion based on diagnosis ($P = 1.0$), drug regimen ($P = 0.58$), or race ($P = 1.0$).

The importance of immunization in children is well recognized. However, it is important that recipients of vaccines are informed of the risks associated with their administration. Potential risks of live vaccines are of particular concern in those who are immunosuppressed,

including infants born to pharmacologically immunosuppressed mothers. Hence, it is imperative that physicians assess immune status, including the potential effect of medications upon immunity, prior to administering vaccines. While this study is limited based on size and duration, it suggests that physicians may not consistently discuss or may not consistently document their discussion about the risks of live vaccines. Increased efforts are necessary to ensure that physicians counsel women about vaccination risks in their newborns following intrauterine exposure to immunosuppressants.

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