

DRUG INFORMATION

Bob Buckham
Pamela Buffery
Judy Dalrymple



CLINICAL PHARMACOLOGY

Murray Barclay
Evan Begg
Petra Lowe
Jane Vella-Brincat
Mei Zhang
Sharon Gardiner

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QUESTION

A patient with stable, well controlled Crohn's disease, treated with Colifoam (hydrocortisone) enemas is considering pregnancy. She has read that this can cause complications during pregnancy and is concerned about continued use during pregnancy. What is the safety of using hydrocortisone enemas (Colifoam) to maintain remission of Crohn's disease during pregnancy?

ANSWER

Hydrocortisone is a corticosteroid with approximately one-quarter the potency of prednisone. Hydrocortisone enemas are used to treat patients with inflammatory bowel disease that have colitis or proctosigmoiditis.

Approximately 40% of a rectal dose of hydrocortisone is absorbed via the rectal mucosa into the systemic circulation (1). The maintenance dose of hydrocortisone enemas is one application (maximum of 143mg hydrocortisone) rectally on alternate days. This is approximately equivalent to 7mg of oral prednisone daily.

CORTICOSTEROIDS IN PREGNANCY

Corticosteroids, including hydrocortisone, are associated with dose-related teratogenic and toxic effects in experimental animals consisting of cleft palate, cataracts, spontaneous abortion, intrauterine growth retardation and polycystic kidney disease. However, the large body of data in human pregnancies does not support the risk of malformations in the majority of pregnancies. There are data to indicate that chronic use is associated with an increased risk of intrauterine growth retardation and failure to thrive postnatally. However, it is not clear whether these effects are associated with the maternal illness or are directly related to the drugs (2,3).

Hydrocortisone is known to cross the human placenta. However, studies have shown that the majority is metabolised by placental 11-hydroxygenase with low concentrations reaching the fetus (2, 4,5).

CROHN'S DISEASE AND PREGNANCY

Inflammatory bowel disease activity in pregnancy has important implications in terms of pregnancy outcome. It is recommended that patients should aim to be in remission prior to conception and stay on their maintenance therapy during pregnancy (4,6). Women who remain in remission or who have slight disease activity during pregnancy have a 10% risk of spontaneous abortion, which is similar to that in the general population (7). Women who have active disease at the time of conception are at greater risk of spontaneous

abortion (5,7,8). Furthermore, the risk of foetal death or stillbirth increases with increasing disease activity during pregnancy. Stillbirth or foetal death occur in 60% of pregnancies of women with severe Crohn's disease or fulminant ulcerative colitis requiring surgery (9,10).

The risk of premature birth is 2-3 times higher in women with inflammatory bowel disease than the general population, which is related to disease activity (7,10). Indeed, the majority of babies born to women with Crohn's disease are of lower birthweight and again this becomes more pronounced with increasing disease activity (4,5,7). The overall risk of congenital malformation in patients with inflammatory bowel disease is similar to the general population, regardless of medical treatment (5,7).

CONCLUSIONS

As active Crohn's disease is a known risk factor for premature delivery and low birth weight, maintaining disease control during pregnancy is essential for both maternal and fetal health. It is recommended that patients should be in remission prior to conception and stay on their maintenance therapy during pregnancy. High dose corticosteroids have been associated with some adverse effects during pregnancy, such as neonatal growth retardation. However, the maintenance dose of hydrocortisone enemas equates to a low systemic dose of corticosteroids and would be associated with a low risk of adverse effects during pregnancy. In addition, although hydrocortisone crosses the placenta it is rapidly metabolised by placental 11-hydroxygenase resulting in low systemic concentrations in the fetus. Overall considering the risks versus benefits, we would not expect the use of hydrocortisone enemas to maintain remission of Crohn's disease to be particularly problematic.

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