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Skin disease in pregnancy: The approach of the obstetric medicine physician

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Abstract This review presents the approach of the obstetric medicine physician to skin disease in pregnancy. It elaborates on common skin-related problems during gestation, such as pruritus, with or without eruption, and drug eruptions. An algorithmic approach to the differential diagnosis of pruritus in pregnancy is outlined. Also, the review focuses on how to diagnose promptly endocrinopathies presenting with skin manifestations in pregnancy, such as Addison disease, diabetes, and hyperthyroidism. The prompt diagnosis of endocrine disorders can help to optimize management and improve outcomes. Finally, the authors outline their approach to minimizing maternal and fetal risks associated with skin disease. The risks associated with obstetric cholestasis, pemphigoid gestationis, and impetigo herpetiformis are discussed. Prompt diagnosis helps to minimize the serious risks associated with certain infections. Preconception counseling and a multidisciplinary approach are crucial to preventing risks associated with rheumatic skin disease and genodermatoses. Challenging, real-life obstetric medicine cases are discussed.

Introduction

Obstetric medicine (OBM) physicians encounter in their routine practice skin-related problems that, if not addressed and managed promptly, have the potential of affecting maternal and fetal outcomes. We present our approach to common problems during gestation, such as pruritus and drug eruptions. We also elaborate on how to best manage endocrinopathies presenting in pregnancy with skin manifestations, and to minimize relevant maternal and fetal risks. We include the description of several interesting real-life cases that illustrate the challenges OBM physicians face when encountering dermatologic problems in the pregnant patient.

Pruritus in pregnancy

Pruritus is a common complaint during gestation, occurring in 14-20% of all pregnancies[1,2]; however, severe pruritus occurs in only 2% of pregnancies.[3] Although the underlying cause may be unrelated to pregnancy, knowledge about pregnancy-specific conditions helps to establish a diagnosis and guide management in this unique patient population. The approach of the OBM physician to pruritus in pregnancy begins with determining whether there is an associated eruption or not. The

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algorithm in Figure outlines this approach to the differential diagnosis of pruritus in pregnancy. In the absence of eruption, the differential for pregnancy-specific conditions is limited to intrahepatic cholestasis of pregnancy (ICP; also known as obstetric cholestasis). Other causes of generalized pruritus with no eruption, unrelated to pregnancy, may still be encountered during gestation, albeit rarely. Similarly, eruptions in pregnancy may be related to specific pregnancy dermatoses or an underlying condition incidentally occurring in pregnancy. An accurate and timely clarification of the underlying cause of pruritus helps the clinician to manage these cases appropriately.

Pruritus without eruption

In a pregnant patient with pruritus in the absence of an eruption, an underlying cause, such as ICP, that can be associated with serious fetal morbidity should be considered.[4] Other pregnancy-related causes of pruritus include pruritus localized to the abdominal stretch marks (striae gravidarum), hyperbilirubinemic states, and systemic disease unrelated to pregnancy.[4] In the presence of jaundice, entities such as hyperbilirubinemic states, hepatitides, acute fatty liver of pregnancy, hyperemesis gravidarum complicated by cholestasis, and other liver diseases should be considered.[4]

Intrahepatic cholestasis of pregnancy

ICP is a common cause of liver dysfunction in pregnancy.[4] The prevalence of ICP in North America is 0.5-1%, but it is particularly common in Scandinavia and South America, with the highest rates in Chile (15-28%).[5] Patients who develop ICP often have recurrences in future pregnancies, and their sisters have a 12-fold increased risk of the disease.[6] Genetic predisposition and elevated sex steroids in pregnancy have been implicated in the pathogenesis. Various polymorphisms involving the biliary canalicular transporters have been identified as being associated with cholestasis.[7] ICP typically presents in the third trimester with intense pruritus involving the hands and feet, in particular, but quickly spreading to become generalized. ICP is considered in the differential diagnosis of pruritus without eruption. Secondary lesions related to scratching can develop in ICP and present as linear excoriations and prurigo papules. Laboratory abnormalities in ICP include elevated serum levels of fasting bile acids, transaminitis, and in cases of jaundice, elevated serum bilirubin.

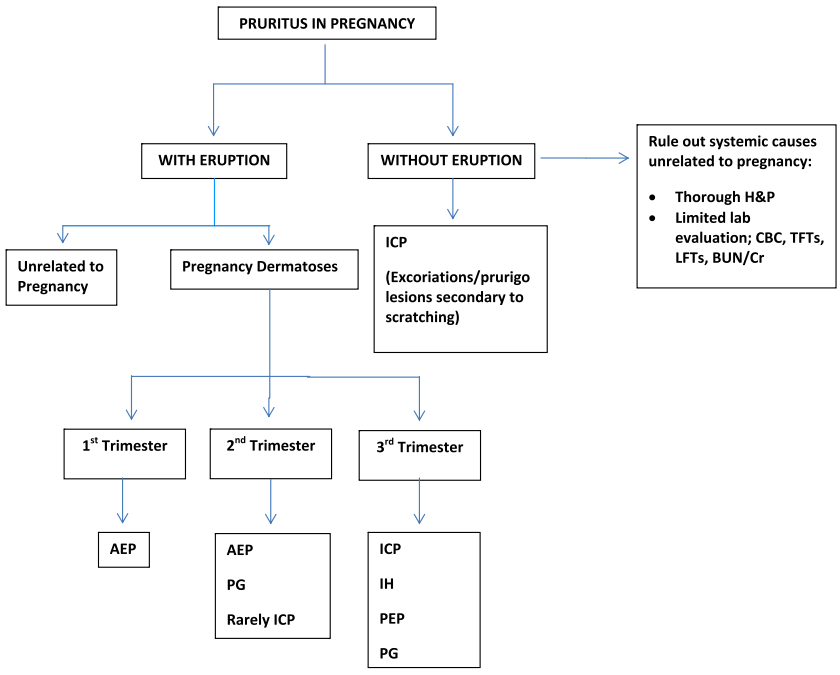

Figure Diagnostic approach to pruritus in pregnancy. *AEP*, atopic eruption of pregnancy; *BUN/Cr*, blood urea nitrogen/creatinine; *CBC*, complete blood cell count; *H&P*, history and physical examination; *ICP*, intrahepatic cholestasis of pregnancy; *IH*, impetigo herpetiformis; *LFTs*, liver function tests; *PEP*, polymorphic eruption of pregnancy; *PG*, pemphigoid gestationis; *TFTs*, thyroid function tests.