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" YTP UPDATE 2020"

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PRURITIS IN PREGNANCY

Pruritus affects up to 20% of pregnant women.[1,2] Pruritus can be sufficiently severe to affect sleep and quality of life, and might lead to or worsen depression.[3] Although it is commonly caused by dry skin, it can also indicate an underlying condition unique to pregnancy.

Pregnancy is a state that leads to various hormonal, metabolic, and immunologic changes. The endocrinology of pregnancy involves increased activity of maternal adrenal and pituitary glands, along with physiological development of fetal endocrine glands. Progesterone and estrogen, among other hormones (e.g., increased cortisone levels), are major factors influencing skin during pregnancy. It is possible that these changes may alter the pruritus pathway and contribute to itch in susceptible individuals.[4]

The dermatoses of pregnancy include

1. Pruritic Urticarial Papules and Plaques of Pregnancy (PUPPP)
2. Pemphigoid Gestationis (PG)
3. Atopic Eruption of Pregnancy (AEP)
4. Intrahepatic Cholestasis of Pregnancy (ICP).[5]

Pruritic Urticarial Papules and Plaques of Pregnancy (PUPPP)

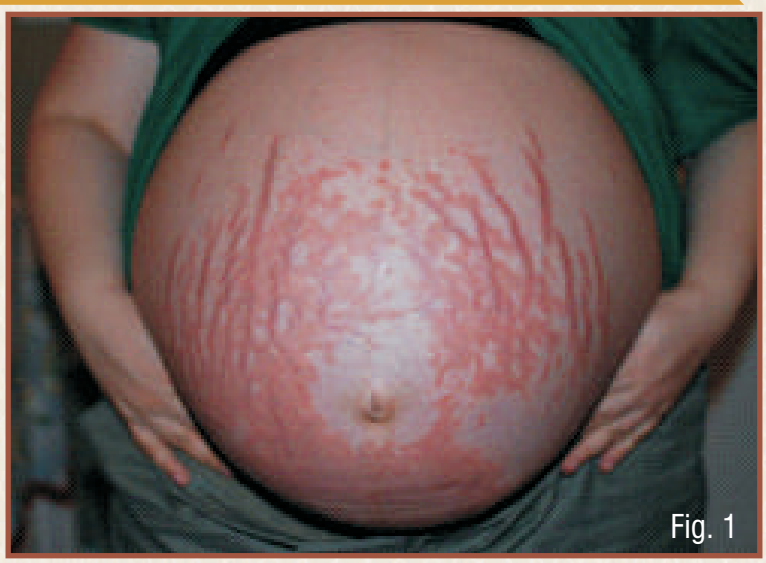


Fig. 1

- It is a benign, self-limited pruritic inflammatory disorder also be referred to as polymorphic eruption of pregnancy, toxemia of pregnancy, or prurigo of pregnancy.
- The incidence of PUPPP is about 1 in 160 pregnancies (0.6%)
- Most commonly occurs in first pregnancies in the third trimester or immediately postpartum
- The lesions are typically urticarial papules that coalesce into plaques and spread from the abdomen to the buttocks and thighs. They develop as microvesicles overlying the striae cutis distensae (stretch marks) and classically spares the umbilical area, palms, soles, and face.[6]

TREATMENT

- It is a self-limiting disorder without serious consequences to the mother and fetus.
- The mean duration of the eruption is 6 weeks and it remits within days of delivery.
- Recurrence is rare.
- Symptomatic treatment with mild to potent topical corticosteroids and antihistamines are the mainstay for treating.
- Oil baths and emollients are also helpful for relief of pruritus.

PEMPHIGOID GESTATIONIS

- It is a self-limited autoimmune bullous disorder
- presents after the 20th week of gestation and might only appear in the postpartum period.
- Historically, PG was referred to as herpes gestationis, a term that was coined in 1872 by Milton because of the characteristic "creeping" blister formation. However, this condition has no association with the herpes virus, and it is now referred to as pemphigoid gestationis.
- It is a relatively rare condition, with an estimated incidence of 1 in 10 000 pregnancies.[7]

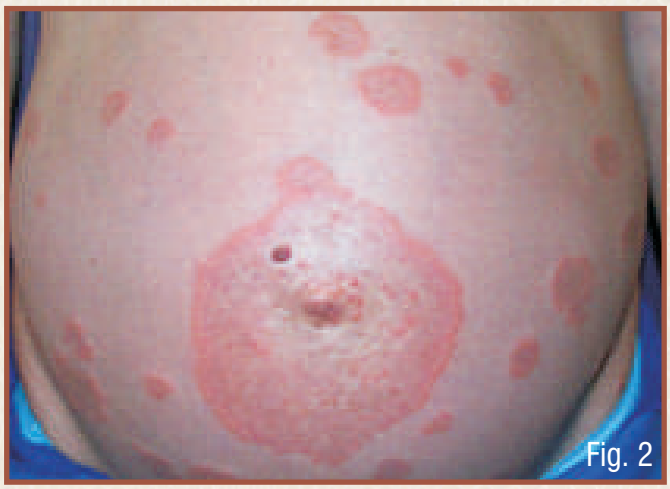


Fig. 2

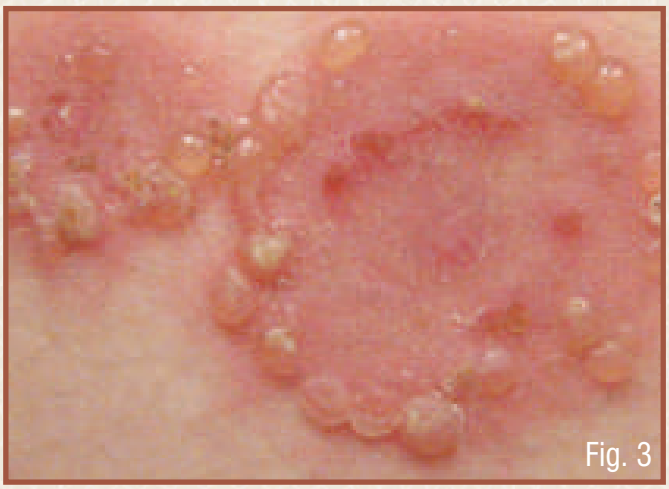


Fig. 3

- The characteristic rash begins with pruritic, urticarial, erythematous papules and plaques around the umbilicus and extremities.
- As the disease progresses, the lesions develop into tense blisters.
- The face, palms, and soles are spared and there is mucous membrane involvement about 20% of the time.
- A skin biopsy is necessary to make the diagnosis.
- It tends to recur in subsequent pregnancies at an earlier gestational age and with increasing severity.
- Pregnancies affected by PG are associated with an increased rate of adverse fetal outcomes, such as preterm births and low birth weight.[8]
- Because of passive transfer of the maternal autoantibodies to the fetus, about 10% of newborns might develop mild skin lesions that resolve spontaneously within days to weeks.[5]

TREATMENT

- Treatment aims to control pruritus and to prevent blister formation.
- In cases of mild pre-blistering state, topical corticosteroids with oral antihistamines might be sufficient.
- All other cases require systemic steroids—typically 20 to 60 mg of prednisone a day

ATOPIC ERUPTION OF PREGNANCY

- Atopic eruption of pregnancy is an umbrella term recently coined by Ambros Rudolph to include prurigo of pregnancy, pruritic folliculitis of pregnancy, and eczema in pregnancy.[5]

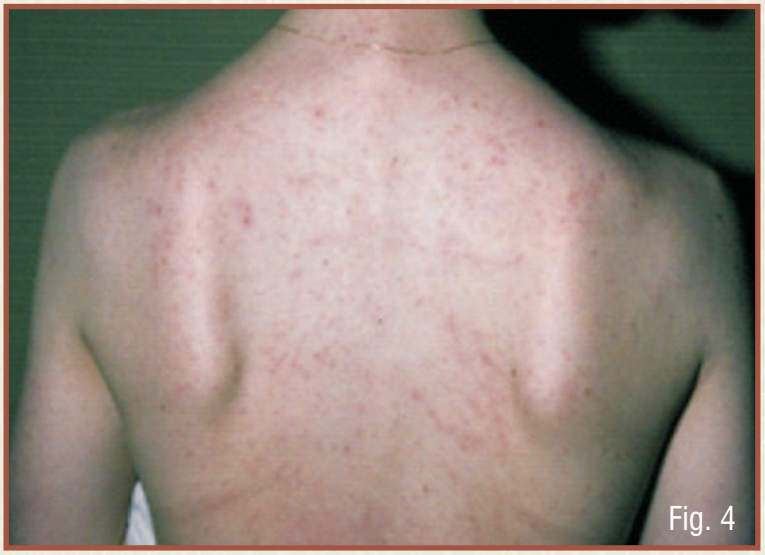


Fig. 4

- These conditions are thought to be triggered by pregnancy-specific immunologic changes
- Most women present with widespread eczematous changes affecting typical atopic sites such as the face, neck, chest, and the flexural surfaces of the extremities.
- These include small erythematous papules disseminated on the trunk and limbs, and typical prurigo nodules located on the shins and arms.

TREATMENT

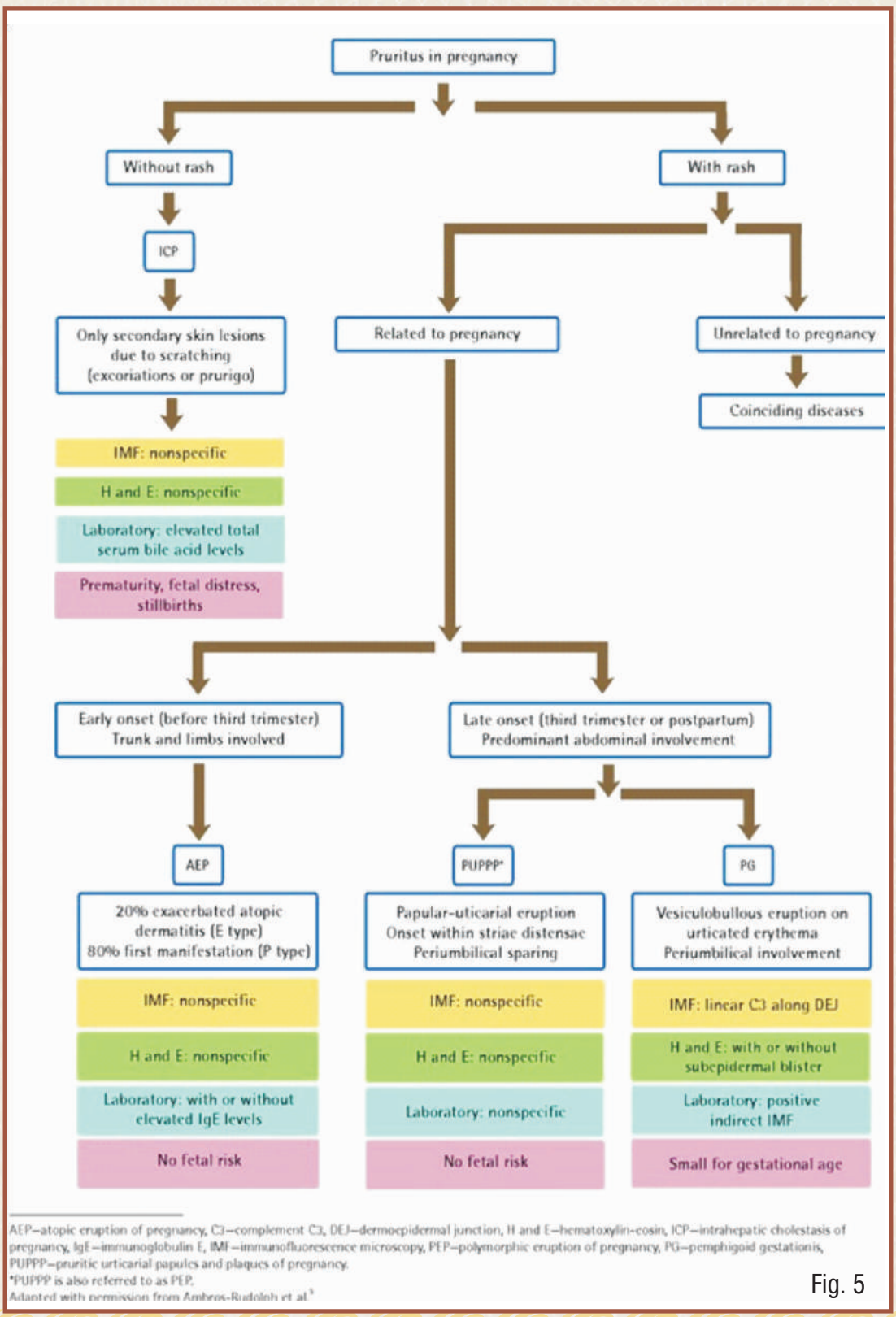
- Use of topical corticosteroids for several days will lead to improvement of the skin lesions.
- Severe cases might require a short course of systemic corticosteroids and antihistamines.
- There is no associated maternal or fetal morbidity.

INTRAHEPATIC CHOLESTASIS OF PREGNANCY

- It is also called idiopathic jaundice of pregnancy, obstetric cholestasis, and pruritus gravidarum.
- It is caused by the disruption of hepatic bile flow during pregnancy, due to a defect in the excretion of bile acids resulting in elevated bile acid levels in the serum
- It presents in the second or third trimester
- there is sudden onset of severe pruritus that starts on the palms and soles and quickly becomes more generalized.
- The pruritus is worst at night.
- The secondary lesions involve linear excoriations and excoriated papules that develop secondary to scratching.
- Jaundice occurs in about 10% of patients and is due to concomitant extrahepatic cholestasis, often accompanied by dark urine and clay-colored stools.
- Toxic bile acids can pass into fetal circulation and might have deleterious effects on the fetus owing to acute placental anoxia and cardiac depression.
- The diagnosis can be confirmed by demonstrating a rise in total serum bile acid levels.
- Levels more than 40.0 μmol/L is associated with a higher risk of adverse fetal outcomes.[4]
- There might also be a mild increase in liver transaminase levels including aspartate aminotransferase and alanine aminotransferase levels, which may appear weeks after the pruritis.
- Monitor Prothrombin Time, and rule out infection Hepatitis.
- Ursodeoxycholic acid is the treatment of choice, as it improves maternal pruritus, decreases liver transaminase and bile acids levels, and might also reduce the rate of adverse fetal outcomes, although this latter effect is debatable.[9,10] A dose of 15 mg/kg daily or 1 g daily is administered until delivery.
- Antihistamines might also improve maternal symptoms. Elective delivery around weeks 36 to 38 has been recommended, as stillbirths tend to cluster around weeks 37 to 39.

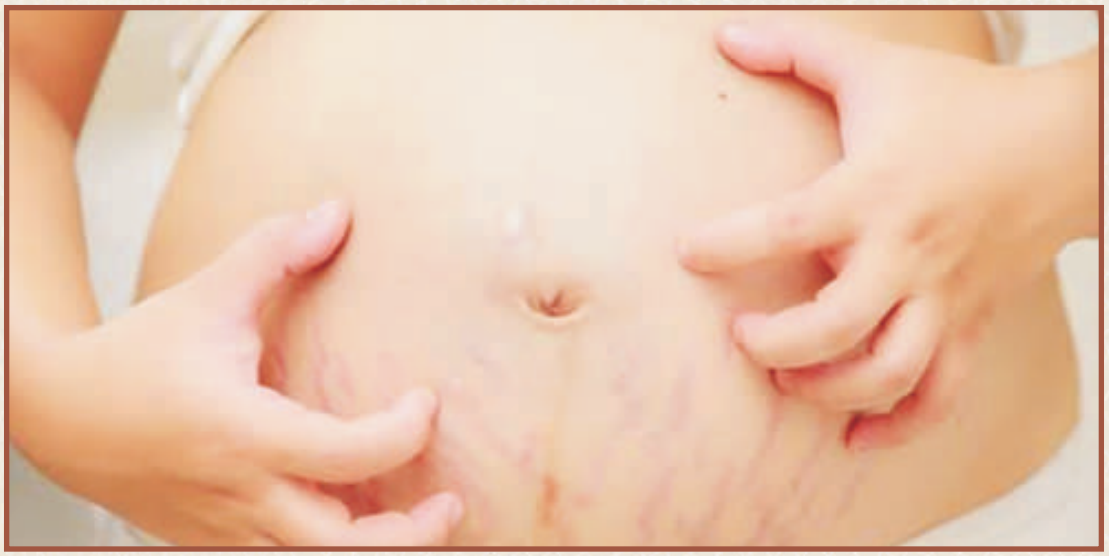
DISCUSSION

Pruritus during pregnancy is a complex symptom the cause of which is poorly understood. Physicians taking care of the pregnant women affected with itch should undertake proper clinical management, as it is essential for the wellbeing not only of the expectant mother, but also of the fetus. Additional laboratory findings and careful anamnesis with an emphasis on the location and timing of the pruritus often reveal important clues that can facilitate diagnosis and efficacious treatment.



AEP—atopic eruption of pregnancy, C3—complement C3, DEJ—dermoepidermal junction, H and E—hematoxylin-eosin, ICP—intrahepatic cholestasis of pregnancy, IgE—immunoglobulin E, IMF—immunofluorescence microscopy, PEP—polymorphic eruption of pregnancy, PG—pemphigoid gestationis, PUPPP—pruritic urticarial papules and plaques of pregnancy.
*PUPPP is also referred to as PEP.
Adapted with permission from Ambros-Rudolph et al.[3]

Fig. 5



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