

# Acute abdominal dermohypodermatitis associated with pregnancy: A new observation

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## ABSTRACT

Erysipelas is an acute non-necrotizing bacterial dermohypodermatitis (DHD), most often (85%) affecting the lower limbs. The occurrence of dermohypodermatitis during pregnancy may jeopardize the maternal–fetal prognosis because of its severity and the obstetric complications. Early management and multidisciplinary follow-up may reduce the complications of these bacterial infections during pregnancy. Several risk factors are implicated in the risk of the occurrence of DHD. They are often encountered during pregnancy, such as lymphoedema, venous insufficiency, and varicose veins, which may explain the topography of the lesions in the lower limbs. In addition, pregnancy represents an additional risk factor due to the impairment of the immune system. Herein, we present the case of DHD in an unusual location in a pregnant female.

**Key words:** Dermohypodermatitis; Abdomen; Pregnancy

## INTRODUCTION

Bacterial dermohypodermatitis (DHD) is a serious infection to appear during pregnancy, mainly due to group A beta-hemolytic streptococcus. This affection, located in the lower limbs in 85% of cases, is a serious and rare infection during pregnancy. Herein, we present the case of abdominal DHD occurring during pregnancy.

## CASE REPORT

A 37-year-old women, multiparous, with no particular medical, presented with painful erythematous pain in the lower abdomen evolving at the beginning of the sixteenth month of pregnancy. The symptomatology initially concerned the iliac fossa with rapid extension to the hypogastric region. The interrogation did not report a similar episode or any notion of drug intake. On admission, a clinical examination found a patient in good general condition, with a fever at 38°C, a painful, hot, erythematous plaque, highly infiltrated at the level

of the lower part of the abdomen, extending from the left iliac fossa to the hypogastric region, and inguinal intertrigo (Fig. 1a).

On biological assessment, the level of the C-reactive protein was elevated to 185 mg/L and the level of white blood cells was 24900/mm<sup>3</sup>, with neutrophilic polynucleosis at 18970/mm<sup>3</sup>. Fetal ultrasound showed no abnormalities. Faced with this atypical localization, a deep infectious focus was suspected. Abdominal ultrasound showed infiltration of subcutaneous tissue without an underlying collection.

The diagnosis of acute abdominal dermohypodermatitis was retained. The patient was initiated on intravenous antibiotic therapy based on amoxicillin-clavulanic acid with a good clinical evolution (Fig. 1b).

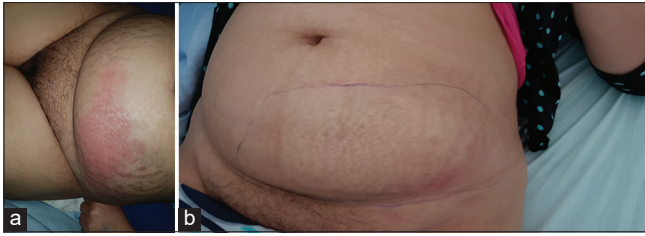
## DISCUSSION

DHD is rarely described in pregnancy and constitutes a factor of obstetric morbidity. This affection is most

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**Figure 1:** (a) Painful, hot, erythematous plaque in the left iliac fossa and the hypogastric region. (b) Complete improvement on day ten of treatment.

often located in the lower limbs and exceptionally at the abdominal level. This may be explained by risk factors also encountered during pregnancy, such as lymphedema, neglected wounds, and intertrigo inter-toes venous insufficiency, varicose veins, being overweight, and intertrigo [1]. In addition, pregnancy represents an additional risk factor due to the alteration of the immune and hormonal systems during the second and third trimesters and the postpartum period to obtain a sufficient level of neutralizing antibodies against exotoxins and surface proteins [2].

The search for a profound infectious focus in dermohypodermatitis of the abdomen is essential. Indeed, in the literature, three cases of DHD revealed abscesses secondary to the perforation of colon cancer, the perforation of a postoperative bladder, and the perforation of the small bowel, respectively. While several cases of necrotizing fasciitis have been reported, secondary to several etiologies is most often neoplastic such as cancer of the cecum and sigmoid and rectum [3].

Management must be early in order to prevent maternal–fetal complications such as neonatal infections, prematurity, etc. [4]. Indeed, maternal inflammation has been shown to lead to exposure of the fetal brain to increased concentrations of this biogenic amine and to impaired growth of serotonergic axons through increased conversion of tryptophan to serotonin in the placenta.

In our patient, the dermatological signs were in the foreground, no local or deep portal of entry was discovered in our patient. Early medical management was established with good local and obstetrical evolution.

## CONCLUSION

The particularity of our observation was in the rarity of DHB in the abdomen of a pregnant female. In this context, the early realization of a biological assessment and abdominal ultrasound in search of an infectious focus is of major interest. Medical treatment should be instituted with a delay with close maternal and fetal monitoring.

## Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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