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RESEARCH ARTICLE

PEMPHIGOID GESTATIONIS : REPORT CASE AND LITERATURE REVIEW

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Abstract

Pemphigoid gestationis is a gravidic dermatosis usually appearing between the 28th and 32nd week of amenorrhea. The rash is pruritic, bullous or vesiculopapular and of periumbilical topography. In addition to clinical findings, Thediagnosis is confirmed by direct immunofluorescence. If local treatment fails, systemic corticosteroid therapy should be administered. Oral corticosteroids are the therapeutic mainstay in pregnancy and postpartum.. Consequences may be maternal (threat of premature delivery), fetal (intrauterine growth retardation), and neonatal (skin rash). Through this observation and a review of theliterature the authors will try to focus on the physiopathology, clinicalprofile, immunological diagnosis, treatment and evolution of PG.

Introduction:-

Pemphigoid gestationis is a rare autoimmune bullous dermatosis specific to pregnancy. The clinical, the histopathologic, and some immunologic features of pemphigoid gestationis closely resemble those of bullous pemphigoid[1]. This disease is characterized by a pruritic maculopapular and bullous eruption. Pemphigoid gestationis typically presents during the third trimester, though it can present in any trimester or even after delivery. The dermal-epidermal junction is affected, and the diagnosis can only be made by skin biopsy [2].

Patient and Observation:-

A 38 years old women multiparous with no notable pathological history developed a pruritic erythematous papular eruption, at 30 weeks gestation on her thighs, trunk and arms, These skin lesions predominated in the periumbilical region (Figure 1-2). A clinical diagnosis of pemphigoid gestationis (PG) was made. This was supported by the histopathology of a skin biopsy, which showed a subepidermal vesicle, a superficial perivascular lymphohistiocytic infiltrate and numerous eosinophils in the lumen of capillaries. Direct immunofluorescence showed bright linear basement membrane zone staining with IgG and C3. She was admitted to our institute and commenced on 80 mg oral prednisolone daily. This dose was halved over the next 4 weeks, which allowed the rapid regression of the skin lesions. At 34 weeks gestation she experienced a exacerbation of the eruption of the same topography, was readmitted, which prompted a resumption of the treatment. Her dose of oral prednisolone was then gradually decreased and stopped. The pregnancy was carried to term with regular follow-up showing no abnormalities.

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Discussion:-

Pemphigoid gestationis is a rare vesiculobullous disease that affects young women, most commonly during pregnancy (entre 28 et 32 SA) but occasionally in association with trophoblastic tumors such as hydatidiform mole [3] or choriocarcinoma[4]. The incidence of PG has been variably estimated, one case per 2000 up to 60,000 pregnancies. It is more frequent in persons with fair skin than dark skin[5]. Patients demonstrate an increased frequency of HLA DR3, DR4, and HLA-B8. Multigravidae pregnancies are associated with an earlier onset of PG compared to primigravidae (21 weeks compared with 31 weeks, respectively) and a longer time to remission[6]. Almost half the cases of PG occur in primigravids.

PG initially presents with intense pruritus and inflammatory skin lesions. Pruritus can remain the only symptom, but mostly it develops into eruptive polymorphic skin lesions. Eruptive skin lesions initially present as urticarial papules and annular plaques, followed by vesicles and finally large tense bullae on an erythematous background[7]. Sites commonly involved include the umbilicus (87%), abdomen, trunk, legs and arms[8], [9]. The mucosae are uncommonly affected[8,9]. In most patients lesions heal without scarring [10]. The disease usually regresses spontaneously even without treatment through the weeks to months after parturition [11]. General symptoms have also been occasionally described, including lassitude, exhaustion, elevated temperature, shivers, shakes, and psychic stress due to severe pruritus.

PG spontaneously resolves after pregnancy, though an immediate postpartum flare is not uncommon. This supports the plausible pathogenic role of fluctuations in sex hormones. Post-partum, the blisters and urticarial plaques take on average 4 and 14 weeks to resolve, respectively, without scarring.[12] Rarely, a severe course with persistence of skin lesions over several years is seen.[8] In a study of 87 patients from the UK, the duration of active disease ranged from 2 weeks postpartum to 12 years postpartum.[8] Patients with onset in early pregnancy have a better prognosis and PG terminates soon after delivery[12]. Almost half of the cases develop in the first pregnancy; however, there is a high risk of recurrence in subsequent pregnancy. PG can recur with menstruation and oral contraceptives postpartum use in 25% of cases, though smaller studies have suggested up to 50% with oral contraceptives postpartum use[2, 9, 12],PG has been reported to skip subsequent pregnancies in about 8%[8].

The histopathology of PG varies with the severity and the stage of the disease. In the early pre-bullous stage the classic histopathologic findings are urticarial lesions characterized by edema of the upper and mid-dermis with a perivascular infiltrate of lymphocytes, histiocytes, and eosinophils. In the later, bullous stage subepidermal split formations and bullae become evident. Deposition of immune complex in the basal membrane has been demonstrated by direct immunofluorescence (DIF).[13,14] Concomitant Linear depositions of immunoglobulin G (IgG),IgA, and C3 complement fraction at the basement membrane zone are foundin only about 25% to 30% of patients[15]. The majority of patients have circulating IgG autoantibodies against the BMZ on indirect immunofluorescence. BP180 is the major target autoantigen on ELISA and immunoblotting, particularly against the NC16A domain of BP180. This test has shown a specificity of 94%–98% and a sensitivity of 86%–97% in the detection of BP180 antibodies in patients with PG[16,17]. ELISA is suitable to monitor disease activity because serum levels of anti-BP180 NC16A correlate with disease severity[18].

Among the differential diagnoses of PG that should be considered are Bullous pemphigoid, cicatricial pemphigoid, linear IgA dermatosis, pruritic urticarial papules and plaques of pregnancy, acute urticaria, erythema multiforme, allergic contact dermatitis, dermatitis herpetiformis, drug-induced bullous disorders, bullous Sweet syndrome, papular dermatitis of pregnancy, prurigo gestationis of Besnier, pruritic folliculitis of pregnancy, and scabies, as well as other dermatoses.

The goal of the treatment is to reduce pruritus and to avoid the formation of new blisters. The treatment strategy depends on the severity of the disease. Mild cases of pemphigoid gestationis may respond to topical corticosteroid therapy with or without orally administered antihistamines. and if severe, oral prednisolone in consultation with an obstetrician[8,19]. Prednisolone, 20–30 mg daily can be effective, but in severe disease higher doses of 40–80 mg prednisolone will usually be required. Occasionally short-term, higher doses may be required with appropriate precautions. In the last trimester of pregnancy, the dose of oral prednisolone can often be tapered, but may have to be increased after delivery to offset potential postpartum flares. The borderline between mild and severe forms is not clear, The only criterion proposed in the literature is the criterion of body surface affected (greater or less than 10%)[20].In the absence of a consensus on the borderline between moderate and severe forms of the disease, the precise modalities of corticosteroid treatment (topical or systemic, duration of initial treatment, rate of reduction),

remain poorly defined. In unresponsive cases, patients may benefit from systemic immunoadsorption a blood-purification technique that enables the selective removal of immunoglobulins from separated plasma through high-affinity adsorbers, apheresis[21], and IVIG[22]. In cases of persisting (postnatal) symptoms, systemic immunosuppressants such as cyclosporine, cyclophosphamide, dapsone, azathioprine, rituximab, or methotrexate might be beneficial[23]. Other alternatives, for which there are limited data but have had successful results, are doxycycline/minocycline, nicotinamide, ritodrine, and goserelin.

Fetal prognosis is generally good, but PG is associated with fetal risks such as premature birth, low birthweight[24] or stillbirth rate (0 to 7.7% of cases)[1,25]. After birth, early neonatal lesions occurring before the 7th day of life may exist. They occur in 5-10% of cases; their frequency depends on the transplacental passage of autoantibodies, which is low. These neonatal lesions are essentially cutaneous (mild urticaria-like or vesicular skin lesions[1,26] but also neurological in rare cases (cerebral hemorrhage [27]).

The maternal consequences of pemphigoid gestationis are dominated by the risk of recurrence in subsequent pregnancies (earlier and more severe) [2] but also by the threat of premature delivery (rate varying according to authors from 0 to 23%) [1].

Conclusion:-

The pemphigoid gestationis (PG) is a rare epidermal bullosadermatosis, when suspected clinically, the diagnosis must be established, and treatment should be started early as the disease responds well to steroids. A parturient with PG should be considered as a carrier of a high-risk pregnancy and should be followed in a center capable of managing preterm delivery and the newborn should be cared for in a neonatology department.

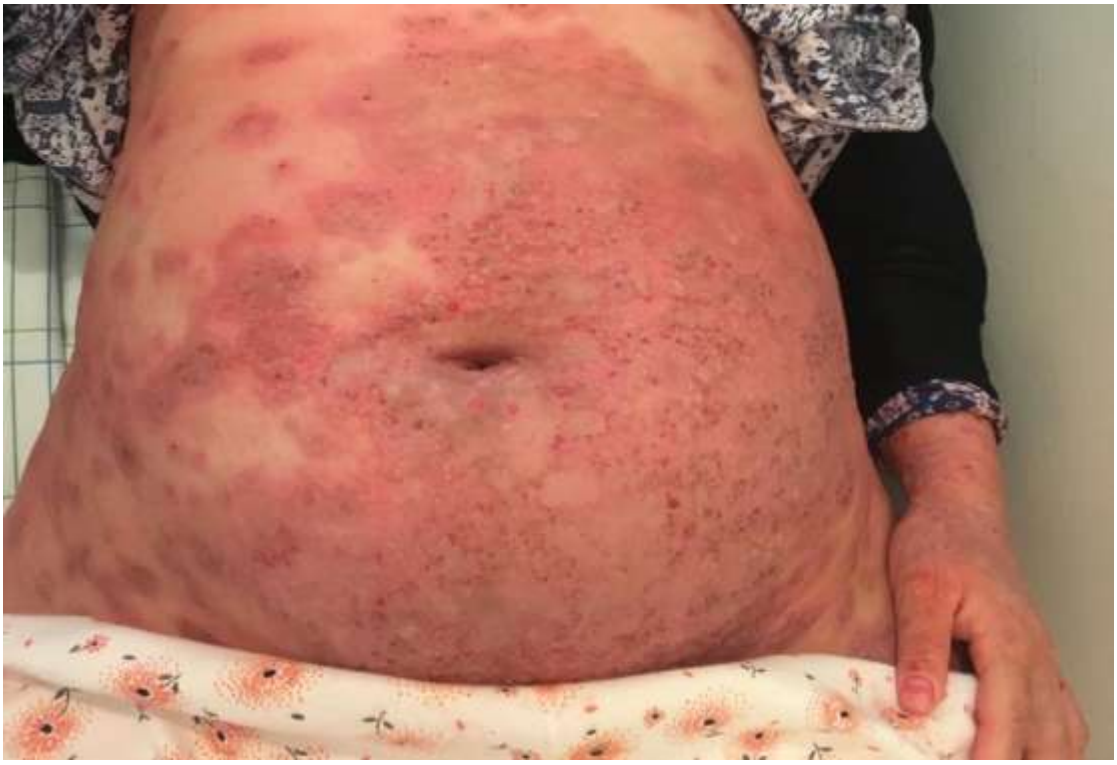

Figure 1:- Pruritic urticarial lesions developing a periumbilical pattern on the abdomen.

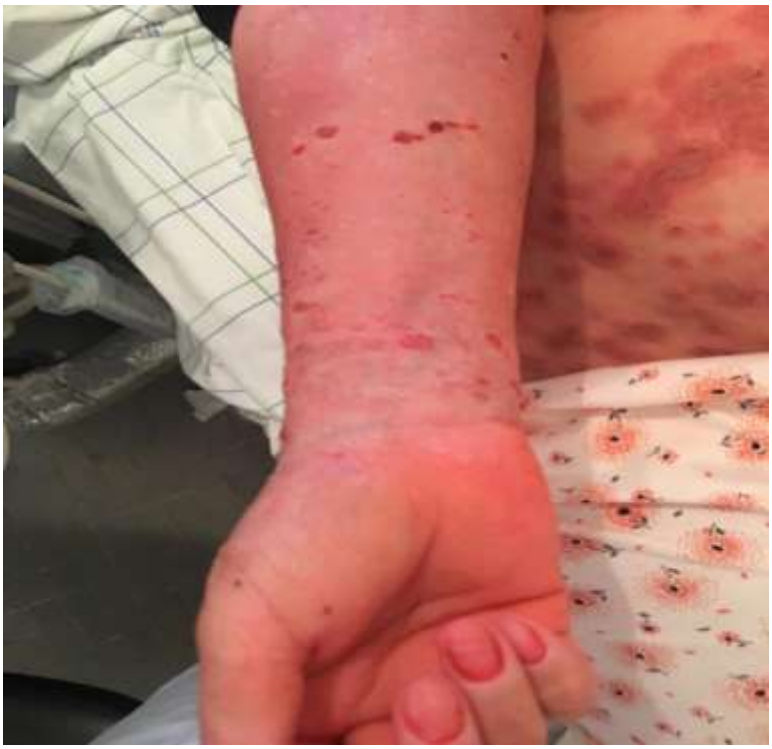

Figure 2:- Widespread erythematous plaques, urticarial erythema developing on the arm.

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