CASE REPORT

PYODERMA GANGRENOSUM IN AN INFANT TREATED WITH SKIN GRAFTING

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Abstract

Pyoderma Gangrenosum (PG) is rapidly progressive, painful necrotic cutaneous ulcer with violaceous and undermined border.When underlying tissues are exposed at the ulcer bed, debridement and skin grafting may be necessary.We report 8 month infant with PG occurring in gluteal region with frequent faecal soiling and split skin graft was done successfully.

Key words: Pyoderma Gangrenosum, infant, gluteal region, split skin graft

Introduction

Pyoderma Gangrenosum (PG) is a rare non infective, non-neoplastic, necrotizing skin disease and classified into ulcerative, pustular, bullous and vegetative types (1). Ulcerative is the typical one and can be pathergic in aetiology (2). We are reporting a case of PG in the gluteal region because of its rarity in infants and management difficulty as fecal soiling hampered the healing.

Case Report

An 8 months old girl presented with extensive ulceration and blackish discolouration over both gluteal region since 18 days along with fever since 21 days. There was history of intramuscular injection on both gluteal regions by family doctor. There is no history of convulsions, altered sensorium, cough, diarrhea, vomiting or joint swelling. On examination, vital parameters were normal. There were huge ulcers on both gluteal region extending close to the anus with thick black eschar and granulation tissue underneath with purulent discharge. Ulcer on the left buttock measured 9 x 8 cm and ulcer on the right side measured 8 x 7 cm (Fig 1). Other systems were normal. Her investigations revealed hemoglobin of 9 gm/dl, white cell count of 25,300/cumm (70% polymorphs and 30% lymphocytes), platelet count of 5.8 lakh/cumm, and ESR of 85mm at end of one hour. Chest x-ray was normal and HIV ELISA was negative. Liver and renal function tests were normal. Skin biopsy showed epidermis displaying focal hyperkeratosis, acanthosis and the dermis with congested capillaries, edema, extravasation of RBCs and neutrophilic infiltrate. There was perivascular lymphocytic cuffing. Blood culture was sterile, pus culture from gluteal region grew klebsiella and coagulase negative staphylococci. In view of the pus collection at the gluteal region and fever, ampicillin, cloxacillin and ceftazidime were started. She became afebrile after 7 days. We continued antibiotics, dressing and started prebiotics. Inspite of our efforts, child had continuous soaking of ulcers with faeces on both gluteal regions due to its close proximity to the anus which hampered healing of the ulcers. In view of diarrhea and infected ulcers we did not start steroids and planned for colostomy. After colostomy and debridement of the ulcers, infection came under control and healthy granulation tissue appeared. Because of the large raw area, split skin graft was done for both gluteal regions. Skin grafts were taken from posteromedial aspect of thigh and grafted to the raw areas. By 7 days graft was well taken, without any healing problem at the donor site (Fig 2). Baby was discharged and asked them to come for closure of colostomy. Closure of colostomy was done after one month.

Figure 1: Pyoderma Gangrenosum

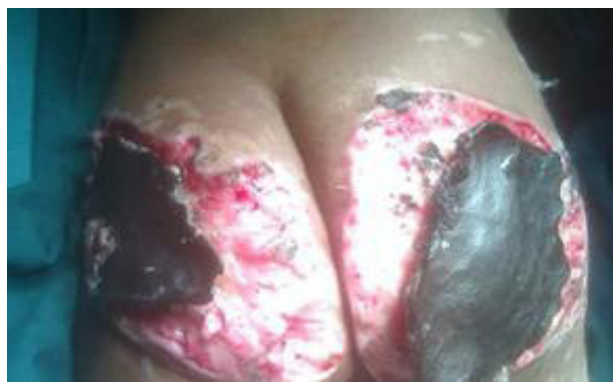
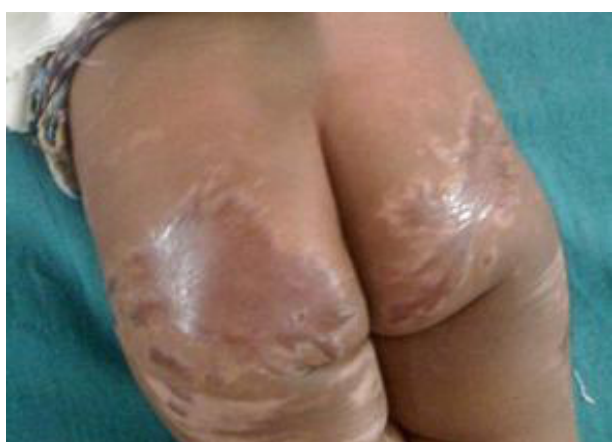


Figure 2: Pyoderma Gangrenosum after skin graft



Discussion

The exact causative mechanism of PG is unknown and it occurs between 25 and 45 years of age (1,3). Approximately 4% of patients are infants and children (3-5). PG occurs in association with systemic disease in 50% of cases (2,3,5). In PG cutaneous lesions are characteristic, begin as pustule or vesiculopustule and progresses to an ulcer or deep erosion with violaceous overhanging or undermined borders. Lesions are most commonly located on lower limbs but may occur anywhere (2,5). The distribution of lesions in children is similar often involving the lower extremities, but PG of the head and face appears to be more common in children (4). Our patient had PG involving the gluteal regions. The lesions are often secondarily infected with bacteria. Diagnosis is difficult because of its protean morphological manifestations and absence of confirmatory lab investigation (2,3,5). Therefore the diagnosis of PG is based on pathologic features

and requires exclusion of conditions that produce ulcerations. There have been only 12 cases of PG reported in infants over past 25 years to the best of our knowledge (6). In a study by Graham et al out of 46 patients, only 4 were less than 1 year of age (4).

The differential diagnosis of PG includes skin infections, herpes simplex, impetigo, ecthyma gangrenosum, deep fungal infections (2). Despite advances in management, the long term outcome of PG remains unpredictable (5). For patients with a more widespread disease or rapidly progressive course, systemic treatment is mandatory (5). Current management is primarily medical to control the systemic inflammatory process, local wound care with occasional surgical intervention at the ulcer site (7). The most frequently prescribed treatment for children is systemic corticosteroids, which generally are very effective. In adults, combinations of steroids with cytotoxic drugs are used in resistant cases. The combination of steroids with sulfa drugs or immunosuppressants has been used as steroid-sparing modalities (5). Treatment is individually decided according to disease severity and the presence of associated disease. Split skin grafts may have a role to play in management (8-10). Our case had secondarily infected PG on both gluteal regions with frequent fecal soiling which was unable to heal. Therefore we opted for diverting colostomy, surgical debridement and split skin graft to decrease the morbidity, hospital acquired infections, cost and duration of hospital stay.

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