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Case Report

Multiple Adverse Drug Reactions in Dexamethasone Cyclophosphamide Pulse Therapy in Pemphigus Vulgaris: A Case Report

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ABSTRACT

INRODUCTION

Pemphigus Vulgaris is a chronic autoimmune dermatosis due to antibodies against Desminoglein 1& 3 and is characterized by bullae and erosions.[1] Diagnosis is done clinically by observing symptoms and by biopsy looking for Acantholysis under immunofluorescent assay.[2] Corticosteroids and immunosuppressants continue to be the mainstay treatment for the management of Pemphigus and Pulses of CS and an adjuvant drug is given, even though patients have benefitted, the Risk of Relapse and immune suppression is high.[3] Pulse therapy refers to the administration of intermittent supra pharmacological doses of drugs to achieve maximal effect in less time and to reduce complications of long-time drug use. Dexamethasone, Cyclophosphamide Pulse (DCP) is usually administered in treating pemphigus Vulgaris, alternatively, Dexamethasone Azathioprine pulse (AZP) can also be used if necessary, Dexamethasone Methotrexate pulse (DMP) is preferred in patients not responding to DCP/DAP. [4]

Keywords: Drug; Pemphigus Vulgaris; Cyclophosphamide Pulse

CASE REPORT

A 40 yr old female patient presented with fluid-filled lesions on the trunk, face, and upper extremities which were progressive, the bullae ruptured to form erosions with a few crusted lesions, erosions were noted all over the mouth and palate. No H/O drug intake, Trauma to the area, photosensitivity, or Insect bite reaction, Biopsy of the right arm was done which demonstrated acantholysis in the suprabasal layer of epidermis with sparse Lymphocytic infiltrate in dermis suggesting Pemphigus Vulgaris.

Case Report

Treatment was initiated with Dexamethasone 4mg BD along with empirical Amoxicillin + potassium clavulanate 1.2 gm B.D and the pus sample was sent antibiotic sensitivity test, which revealed the presence of acetobacter human ii complex sensitive only to tigecycline and partly sensitive to colistin. Triamcinolone ointment was advised for ulcers of the oral mucosa, topical clobetasol 1% w/w with salicylic acid Tab. Cyclophosphamide 50mg was prescribed for conservative management. The patient also had c/o Itching for which Pheniramine maleate IV was given. The patient was treated until her primary lesions were almost healed and there were no new lesions (Figure 1).

Figure 1: Observations and interventions.

On day 4 of Dexamethasone, the patient had remarked remarkable hyperglycemia which was managed by tapering the dose of dexamethasone and starting insulin therapy before initiating phase 1 DCP. On Day 3 of Cyclophosphamide, the patient had c/o Hair loss which was progressive and was pointing towards cyclophosphamide-induced alopecia, the patient was counseled for the same, since excretion of cyclophosphamide is by urine, the patient was advised to increase fluid uptake and urinate frequently (Figure 2).

Figure 2: Day 2 of tigecycline, the patient had c/o Loose stools, which were managed by oral probiotics (sporolac sachets) and drug withdrawal.

DISCUSSION

DCP is preferred in India due to its relatively low incidence of side effects but is not entirely safe; a few prominent outcomes have been noted among them.[5] In this case we observed 3 ADR wiz Dexamethasone induced

hyperglycemia, Cyclophosphamide induced Alopecia and Tigecycline induced loose stools which were pretty well managed.

According to the Naranjo scale Dexamethasone-induced hyperglycemia, Cyclophosphamide-induced Alopecia falls under definite categories and Tigecycline-induced loose stools fall under Probable categories? Furthermore, According to the WHO UMC causality scale Dexamethasone induced hyperglycemia, Cyclophosphamide induced Alopecia satisfy the criteria to be certain, and Tigecycline induced loose stools can be categorized as probable.

Research suggests Corticosteroid induced hyperglycemia is inevitable in patients who receive them without any metabolic disturbances.[6] In this case, the patient was non-diabetic and showed Hyperglycemia while being monitored which was then monitored by administrating Insulin according to the Sliding scale and by tailoring the dose and frequency of Dexamethasone before initiating DCP. Incidence of Cyclophosphamide induces Alopecia is very prominent,[7] luckily is reversible after cessation of drug following completion of therapy.[8] Tigecycline was given as a prophylactic agent to prevent any sepsis which may occur as a secondary acquired manifestation. Tigecycline was the only microbial to which the pus culture was sensitive.

The incidence of tigecycline-induced loose stools is about 12%.[9] Post reporting, the drug was withdrawn and the patient had no fresh c/o loose stools, Additionally Sporolac sachets (containing lactobacillus spores) were prescribed for the same.

CONCLUSION

Adverse drug reactions continue to be a matter of concern in treating patients with chronic and acute illnesses, anyhow effective management can be enhanced by a multidisciplinary approach. Corticosteroid-induced hyperglycemia is commonly seen in many patients who undergo routine DCP therapy Active management of the same will prevent dangerous and life-threatening manifestations of the same. Cyclophosphamide-induced alopecia is reversible proper patient education and counseling will help in combating the uncertainties surrounding the same The role of EBM can be pretty well seen in this case, wherein the lesions improved post-starting of Tigicycline that sensitivity was accessed by antimicrobial sensitivity test. Management of Adverse drug reactions begins with active screening and interaction. The interdisciplinary approach promises better and much quicker screening and management of adverse drug reactions and in turn decreases agony to the patient while ensuring a better prognosis.

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