

Iatrogenic Cushing syndrome due to topical steroid use in paediatric population of Pakistan

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Madam, Cushing's syndrome is a rare endocrine disease characterized by cortisol hyper-secretion, induced mainly by a pituitary tumour (Cushing's disease) or, rarely, by an adrenal or an ectopic neuroendocrine tumour. According to Pivonello, R. et al. Cushing's syndrome is associated with severe morbidities and an increased mortality.¹

Iatrogenic Cushing syndrome develops when excess cortisol has been taken from an external source (e.g. medications) for a long period.²

The cases of Iatrogenic Cushing syndrome are a rare occurrence, however, there is a lack of awareness regarding the misuse of topical steroids in infants and young children having diaper dermatitis.^{2,3} According to Ahmed SM et al., newborn babies are more prone to be affected by topical steroid-induced Iatrogenic CS because their skin is delicate and more permeable, has greater body surface area, and higher incidence of conditions that require the application of these medications.² Prescribing topical corticosteroids for rashes is a common practice by quacks, practitioners of complementary medicine like Hakeem, homeopaths, etc. due to their effectiveness, low cost, and easy availability.⁴ However, the problem arises when these are misused for a long period. Steroids are also being administered without prescription.³ Many parents, while unaware of the drastic consequences, start using these potent corticosteroids frequently and without prescription, even for rashes that can be managed otherwise.^{3,5}

The majority of infants with diaper dermatitis can be treated fully with regular diaper changing, giving periodic breaks from diaper-wearing, and applying protective agents containing petroleum or zinc oxide on the skin.⁵ If necessary, low efficacy topical steroids (e.g., 2.5% hydrocortisone) can be utilized only for a brief period (not more than 5 days) with proper vigilance and appropriate amount but high potency steroids (clobetasol, betamethasone, triamcinolone) are strictly

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Figure: Hypertrichosis, facial plethora, thinning of skin and moon facies caused by use of steroid ointment on nappy area in a 6 months old baby at routine diaper change since birth. Figure taken with permission from "Iatrogenic Cushing's syndrome in children presenting at Children's Hospital Lahore using nappy rash ointments".³

contraindicated, especially for long periods.⁵

The cases of Iatrogenic CS are frequently observed in the outpatient settings of public sector facilities across Pakistan (Figure).³ They should be considered a public health issue since the administration of high-dose corticosteroids not only is dispensing the available resource of this medication but also deranging the internal metabolism of the paediatric age group. The use of exceedingly potent topical corticosteroids, predominantly in children, may result in a decrease in immunity, and this repression may direct the

predisposition to various infections.⁶ Moreover, adrenal diabetes can emerge in the cases of increased intake of corticosteroids, rendering the lives of these children vulnerable to oral and parenteral hypoglycaemic drugs. Therefore, proper guidance of clinicians and prompt awareness of parents and the public are needed in this regard to prevent misuse.^{2,3}

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