

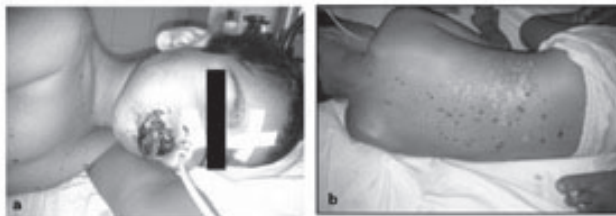
LETTER TO EDITOR (VIEWERS CHOICE)

STEVENS - JOHNSON SYNDROME OCCURRING AS AN ADVERSE REACTION TO INTRAVENOUS GADOLINIUM CONTRAST

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Stevens-Johnson syndrome (SJS) is thought to represent a disease continuum, with the most benign being erythema multiforme, and severe most being toxic epidermal necrolysis. (1) We report a 5 ½ years old male boy who had intellectual disability with seizure disorder and was on valproic acid (60 mg/kg/day) for last 2 years and was seizure free since then. Magnetic resonance imaging (MRI) was being repeated with gadolinium contrast on advice of the treating physician. Initial plain MRI was done 4 months ago. Within one hour of injection of gadolinium, he developed peri-orbital swelling with conjunctival congestion, swelling of lips and vesicular rashes, which first appeared over the face and then progressed to trunk, arms and external genitalia. (Figure 1). There was discharge from both eyes and ulcers in peri-oral, oral and genital mucosa and was diagnosed as SJS. Total leukocyte counts were elevated (19,800 cells/cumm), renal functions and liver functions were normal. Blood cultures for bacteria and fungus and culture of discharge from eyes were sterile. IgM ELISA for anti-herpes simplex virus 1, Hepatitis A, Hepatitis B, Hepatitis C, parvovirus B19, Epstein barr virus, and variacella were non-reactive. Patient was managed conservatively with intravenous antibiotics, anti-histaminics, dressing with sterile paraffin gauze and valproic acid was continued. Patient improved clinically in 20 days.

Figure 1: Steven Johnson Syndrome in the child



Drugs appear to be the most common cause of SJS. (2) SJS also has been linked to infectious agents like herpes simplex virus, mycoplasma and measles vaccine. (3) Neoplasm and collagen diseases have also been implicated for its occurrence. (2) Most of these etiologies were absent in our case. Our patient was on valproic acid for seizures. SJS has been reported as an adverse reaction to valproic acid, but the risk of occurrence is largely confined to first 2 months of treatment. (4) This patient was taking valproic acid in maximum doses (60 mg/kg/day) for last 2 years but never develop any allergic reaction. Also, valproic acid was continued during course of hospital stay yet the patient recovered completely. Therefore valproic acid was unlikely to be cause of SJS. Adverse reactions reported after use of gadolinium can be mild, manifesting as burning, itching, reddening of skin and muscle pain or serious such as nephrogenic systemic fibrosis, in those with preexisting renal disease. (5)

Since SJS developed within an hour of exposure to gadolinium contrast, there seems to be a possible, causal relation between the two. Further surveillance for this toxicity is warranted. We have not come across this association during extensive search of published literature. This is probably the first case report of SJS in pediatric age group as a serious adverse reaction to gadolinium and possibly related to it. Hence MRI contrast medium gadolinium can be included in list of drugs associated with SJS.

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