Stevens - Johnson syndrome as a complication of systemic corticosteroids in pediatric kidney disease

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Backgrounds & Aims

Stevens-Johnson syndrome (SJS) is a rare, but life-threatening condition. Even though treatment with systemic corticosteroids for SJS has been suggested, there is controversy with the role of systemic steroid therapy. Some reports have linked exposure to corticosteroids with an increased risk of developing SJS. Therefore, we have investigated the clinical manifestations of SJS in children receiving systemic steroid treatment for renal disease.

Methods

The medical records were retrospectively analyzed of 22 patients with SJS that developed after administration of intravenous methylprednisolone and massive oral deflazacort for management of nephropathy from January 1999 through December 2013.

Results

All 22 patients had a skin rash as the initial manifestation. None of the patients had a drug history except for administration of oral or intravenous steroids. There was no sign of infection in 18 patients. The cumulative dose of total steroid administrated before development of SJS varied from 134 mg to 256 mg/kg. The interval from initial administration to development of symptoms was mean 60.5 days and in all cases less than 10 weeks. In two patients of them, SJS progressed to toxic epidermal necrolysis. None of patients had complications. Although steroid medication were not discontinued, they all recovered completely. They treated with antibiotics and antihistamine.

Conclusions

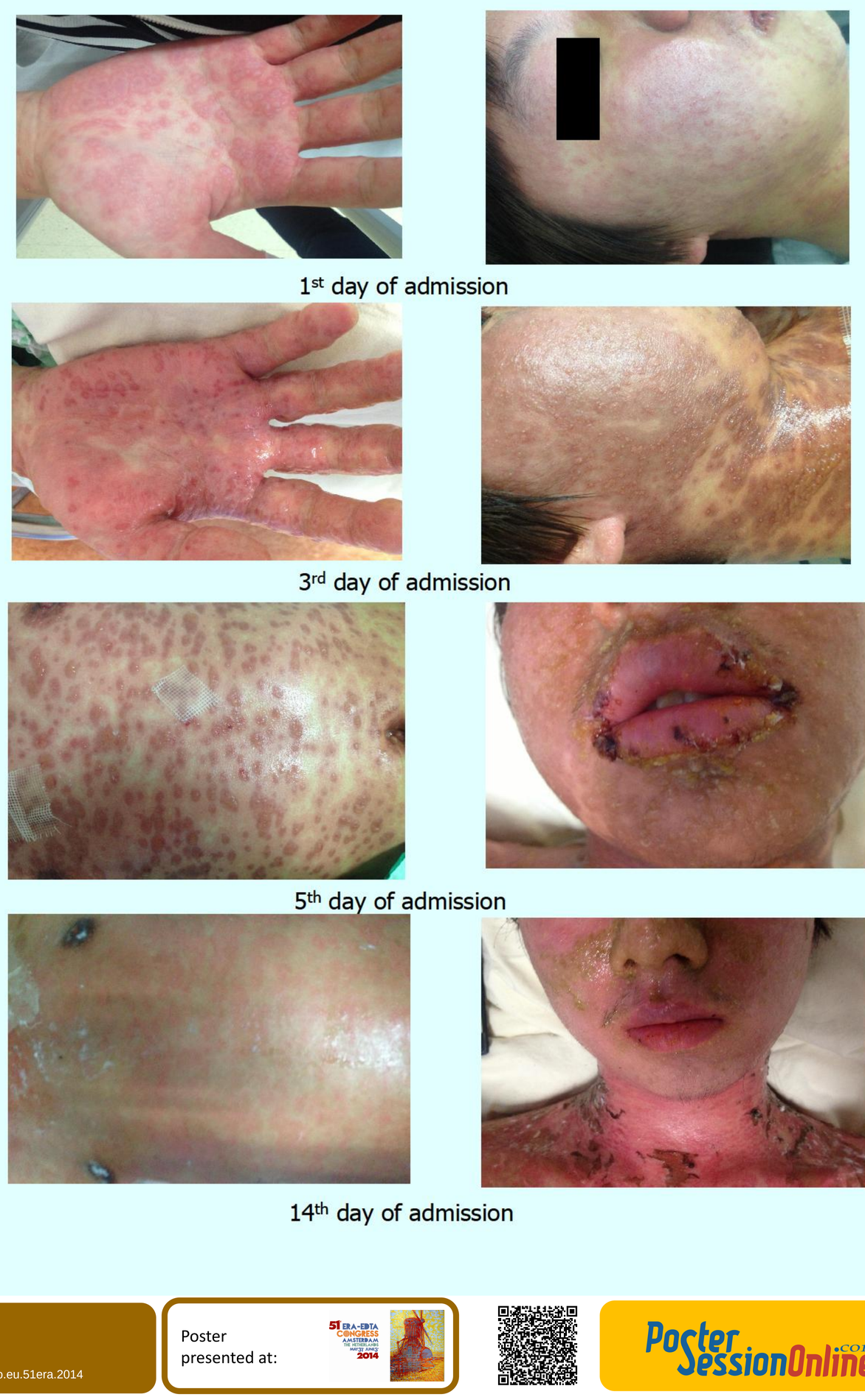
The etiology for SJS in nine patients appeared to be corticosteroid treatment. Therefore, the possibility of a relationship between steroid treatment and SJS should be examined more extensively to determine whether the steroid medication or infection in a steroid-induced immuno-compromised condition is the cause of SJS.

Table 1. The Characteristics of Patients with SJS after steroid treatment

Characteristics	
Sex (%)	
Male	12 (54.5)
Female	10 (45.5)
Age (years)	15.6 ± 10.5
Associated kidney disease	
IgA nephropathy	11(50)
Mesangial proliferative glomerulonephritis	6(27.3)
Minimal change nephrotic syndrome	1(4.5)
Membranous glomerulopathy	1(4.5)
Mebranoproliferative glomerulonephritis	1(4.5)
Lupus nephritis	1(4.5)
Ig M nephropathy	1(4.5)
Latent period* (days)	60.5 ± 42.6
Associated symptom (%)	
fever	4 (18.2)
itching	22 (100)
pain	4 (18.2)
bulla	7(31.8)
oral lesion	5 (22.7)
ocular lesion	5 (22.7)
anogenital lesion	0 (0)
toxic epidermal necrolysis(TEN)**	2 (9.1)
Treatment	
steroid(Deflazacort)***	22(100)
antihistamine	20 (90.9)
antibiotics	6(27.3)
IVIG	0 (0)

* Latent period : The interval from initial administration of steroid to onset of SJS symptom
** TEN : more severe form of SJS. >30% of skin detatchment
*** steroid(deflazacort) : continue administration of oral steroid

Figure 1. The progression of the SJS lesions of 17 years-old patient



1st day of admission

3rd day of admission

5th day of admission

14th day of admission

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