The Turkish Journal of Pediatrics 30:55 - 59, 1988

# A CASE OF KAWASAKI SYNDROME ASSOCIATED WITH PRESEPTAL CELLULITIS IN ORBITA*

*Sadık Demirsoy MD**, Kıvılcım Gücüyener MD***, Rana Olguntürk MD****
*Deniz Oğuz MD*****, Meral Or MD******

*Key words: Kawasaki syndrome, preseptal cellulitis in orbita*

Kawasaki Syndrome (KS) was first described by Tomisaku Kawasaki in 1967, as an acute systemic disease seen mostly in infants younger than five years of age. Known diagnoses have been excluded and five of the following six criteria are met: (a) fever lasting longer than five days that is unresponsive to antibiotics; (b) bilateral conjunctival congestion and hyperemia; (c) one or more changes of the lips, or oral cavity (dry, red fissured lips, reddened oropharyngeal mucosa, "strawberry" tongue); (d) one or more changes of the peripheral extremities (reddened palms or soles, indurative edema, periungual or generalized membranous desquamation); (e) exanthem, usually truncal; (f) acute nonsuppurative cervical lymphadenopathy[1]. We present an unusual case of KS associated with preseptal cellulitis in orbita.

## Case Report

A previously healthy three year-old girl was admitted to the Pediatrics Department of Gazi University Medical Faculty with a three-day history of fever, skin eruptions and swelling of the left orbital region.

Physical examination revealed a temperature of 38.2 °C, maculopapular eruptions mostly on the trunk, and indurative edema on the distal parts of the extremities. Swelling, tenderness and redness of the left orbital region were noted in addition to bilateral conjuctival congestion and hyperemia (Fig. 1). Ophthalmologic examination revealed that the cornea, anterior camera, corneal reflexes and eye pressure were normal. Proptosis, optic neuropathy and limitation of motion were

* From the Department of Pediatrics, Gazi University Faculty of Medicine, Ankara
** Assistant Professor of Pediatrics, Gazi University Faculty of Medicine.
*** Pediatrician, Gazi University Faculty of Medicine.
**** Associate Professor of Pediatrics, Gazi University Faculty of Medicine.
***** Resident in Pediatrics, Gazi University Faculty of Medicine.
****** Assistant Professor of Ophthalmology, Gazi University Faculty of Medicine.

not observed in that particular eye. Oropharyngeal examination showed redness of the lips and oropharyngeal mucosa. Bilateral cervical multiple lymphadenopathies were palpated. Other findings in the physical examination were unremarkable.

Laboratory findings showed hemoglobin 13.10 g/dl, White Blood Cell count 16400 per $mm^3$, with a predominance of segmented neutrophils, platelet count 174000 per $mm^3$ in the beginning and reached a peak of 484000 per $mm^3$ on the sixth day, erythrocyte sedimentation rate 35 mm per hour. The Latex test was negative. ASO was 250 T.U. Brucella, Gruber-Widal titrations were within normal limits. Throat, urine and blood cultures were negative. Urinalysis, liver function tests, protein electrophoresis, X-ray examinations, electrocardiography and echocardiography were normal.

Oral aspirin (60 mg/kg/day) and crystalline penicillin G (300000 U/kg/day iv) were started initially. On the fifth day of admission, the fever and preseptal cellulitis in orbita subsided. Following that, the penicillin G was discontinued, the aspirin dose was reduced to 30 mg/kg/day and procaine penicillin (800000 U/day im) was started. On the fifth and sixth days, membranous desquamation was seen in the

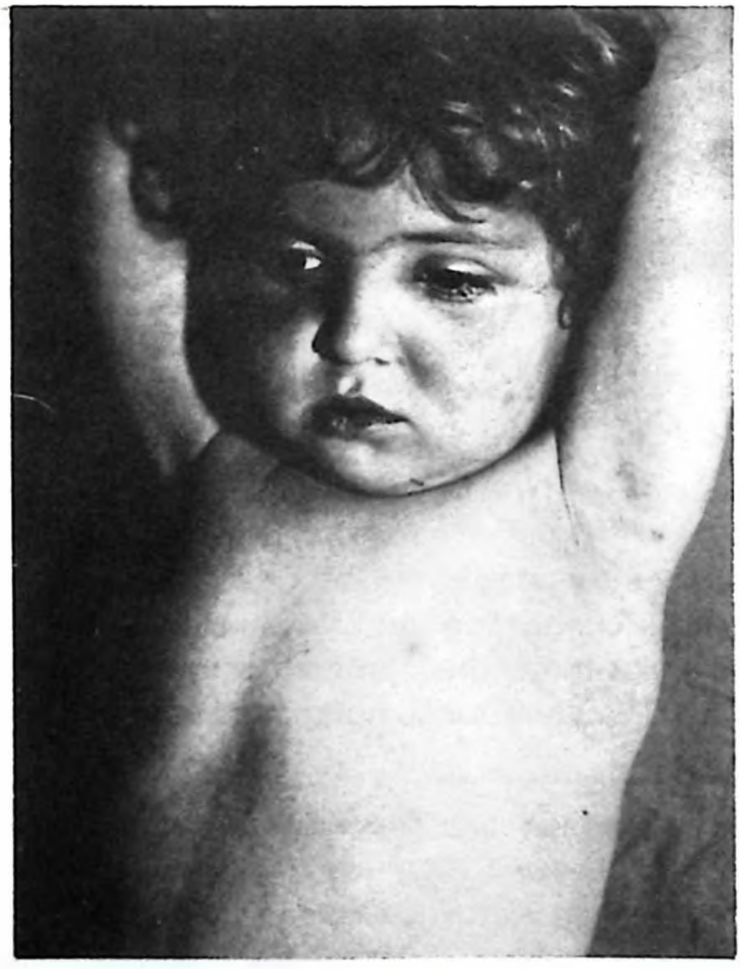

Fig. 1: Preseptal cellulitis on the left orbital region, reddened and fissured lips and maculopapular eruptions on trunk.

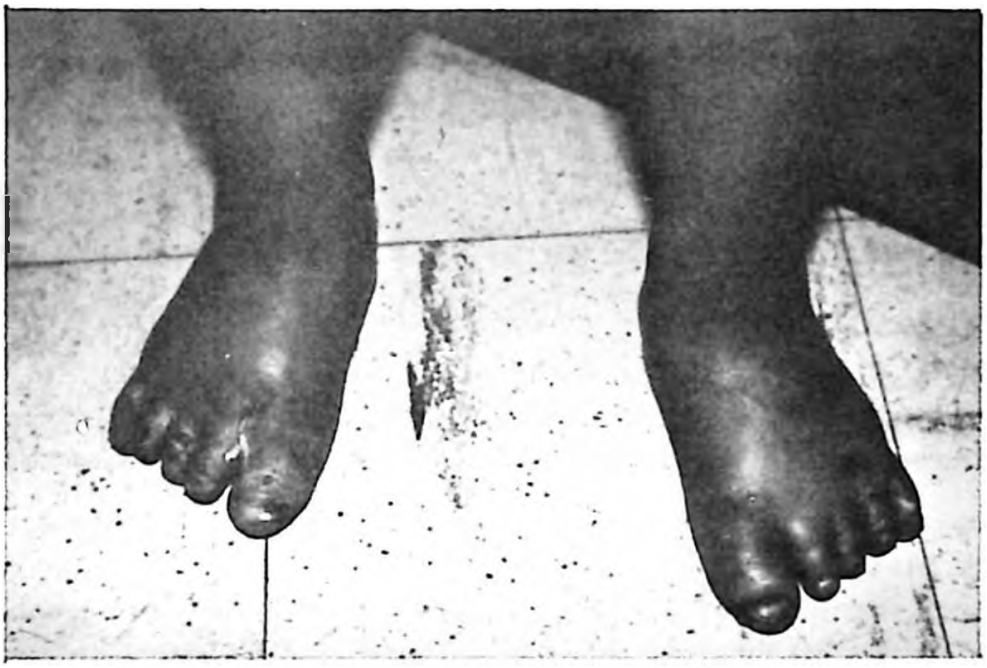

Fig 2: Indurative edema and desquamation on feet

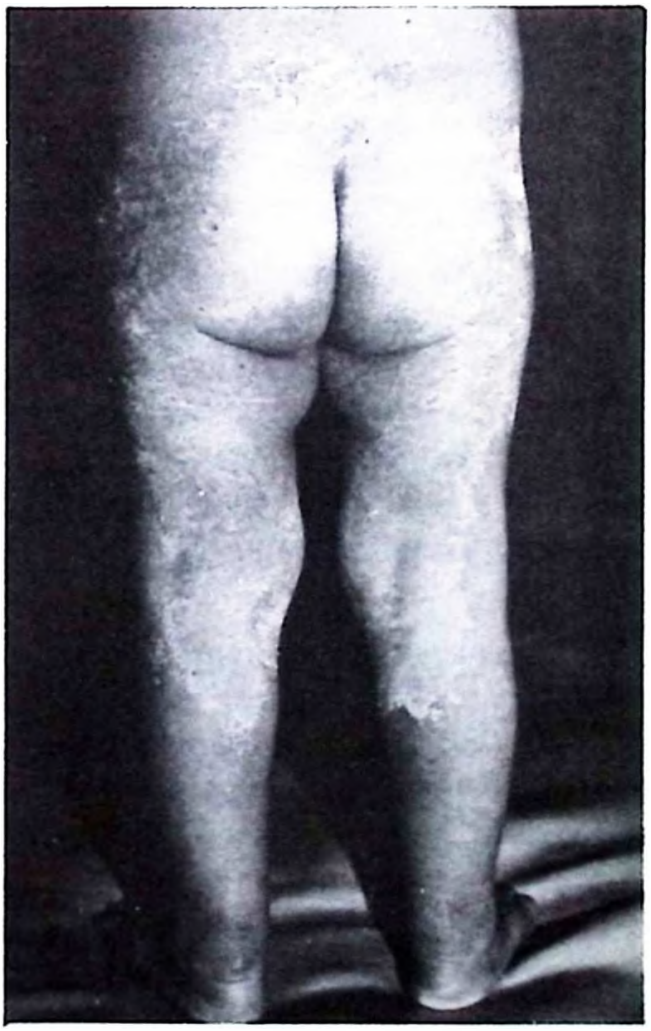

Fig. 3: Desquamation in the diaper region.

diaper region and the distal parts of the extremities (Figs. 2, 3). The patient was discharged on the tenth day. Clinical, electrocardiographic and echocardiographic examinations at the follow-up three months later revealed no cardiac complications.

## Discussion

Kawasaki syndrome, also known as mucocutaneous lymph node syndrome, is an acute, febrile illness. Since first described in 1967, it has been recognized with increasing frequency in the world[2-4]. Cardiac involvement is the most significant aspect of this disease in terms of morbidity and mortality[5].

The diagnosis of KS rests on clinical criteria with the demonstration of a combination of the symptoms previously mentioned. There is no specific laboratory test. The differential diagnosis must be made between poststreptococcal diseases, Stevens-Johnson syndrome and staphylococcal scalded-skin syndrome.

Staphylococcal scalded-skin syndrome was not considered in our case because the blood cultures were negative, Nikolsky's sign was not observed and the recovery was early and complete only with the administration of penicillin[6].

Clinically, the eruption and the desquamation of the skin was not like a streptococcal skin rash and desquamation. In addition, the throat and blood cultures were negative for streptococci.

The mucosal lesions in our case differed from those characterizing Stevens-Johnson syndrome, in that in the latter, the lesions erode, ulcerate, bleed, crust and gradually subside. The skin lesions in Stevens-Johnson syndrome begin as papular lesions that enlarge by peripheral expansion and usually develop a central vesicle. These lesions subside without scarring within one to four weeks. There is usually an association of this syndrome with exposure to drugs, including sulfonamides, anticonvulsants, penicillin and barbiturates which was not observed in our case[7].

Our patient presented with swelling and tenderness on the left periorbital region in addition to bilateral conjuctival congestion and hyperemia which are the classical findings of KS. The swelling and tenderness on the left periorbital region was diagnosed as preseptal cellulitis. With prompt, aggressive treatment, these symptoms subsided in five days. It is well known that the most common cause of preseptal cellulitis in children is paranasal sinusitis and the most frequent pathogenic organisms are *Staphylococcus aureus*, beta-hemolytic streptococci, Streptococcal pneumonia and *Hemophilus influenzae* which were not demonstrated in our case.

A clinical diagnosis of KS can be made in our patient since she fulfilled sufficient diagnostic criteria. As far as we know, no other cases of KS associated with preseptal cellulitis in orbita have been reported in the literature[8].

## Summary

A case of Kawasaki syndrome with preseptal cellulitis in orbita is presented. The patient was treated succesfully without any complications.

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