REITER'S DISEASE (CASE REPORT)

Ibrahim Galadari, MD
Suhail Hadi, M.Phil
Faculty of Medicine and Health Sciences,
UAE University & AL-AIN Hospital, AL-AIN, UAE.

Abstract

The authors describe a single case of classical Reiter's disease.

Introduction

Reiter's Disease occurs world wide as an aseptic chronic arthritis following enteritis or infections of the lower urinary tract. It commonly affects young men positive for HLA-B27 antigen and it frequently involves inflammation of the eyes and various disorders of the skin and mucous membranes.

Case Report

A 30 years old Pakistani male cook presented at our clinic, Al-AIN Hospital with a history of fluctuating fever, dysuria and haematuria for a period of one month. While being treated for this at another clinic he had developed a large swelling of the left knee, severe eye irritation and a skin rash. There had been previous recurrent urinary tract infections but there was no recent history of enteritis or sexual contact.

Clinical examination showed a fluctuating temperature (up to 39.5°c); a fast but regular pulse (85/m) and blood pressure within the normal range (140/90). There was no neck rigidity.

Externally there was diffuse erythema with a generalized papulo-pustular rash (psoriasiform) and flaccid bullae with scaliness, encrustations and peeling of the skin [Fig.1], erosions and flaccid bullae on the skin and mucosa of the mouth and lips, diffuse scaliness of the scalp and face, and the tongue was red and coated [Fig.2], and there was a diffuse thickening of the soles of both feet [Fig.3] with erosion and encrustation at the toe-webs and on the sides of the feet [Fig.4] the tips of fingers were reddened and scaly and there was ridging of the nail plates with some subungual pustules and shedding of nails (especially on the right foot).

A large hot, painful swelling of the left knee, with limitation of its movement (extension-0; flexion-120) and some wasting of the Quadriceps muscles was associated with synovial thickening. There was a similar painful restriction of movement of the tempromandibular joints.

Examination of the eyes, including fluorescent staining and slit-lamp examination, showed a bilat-

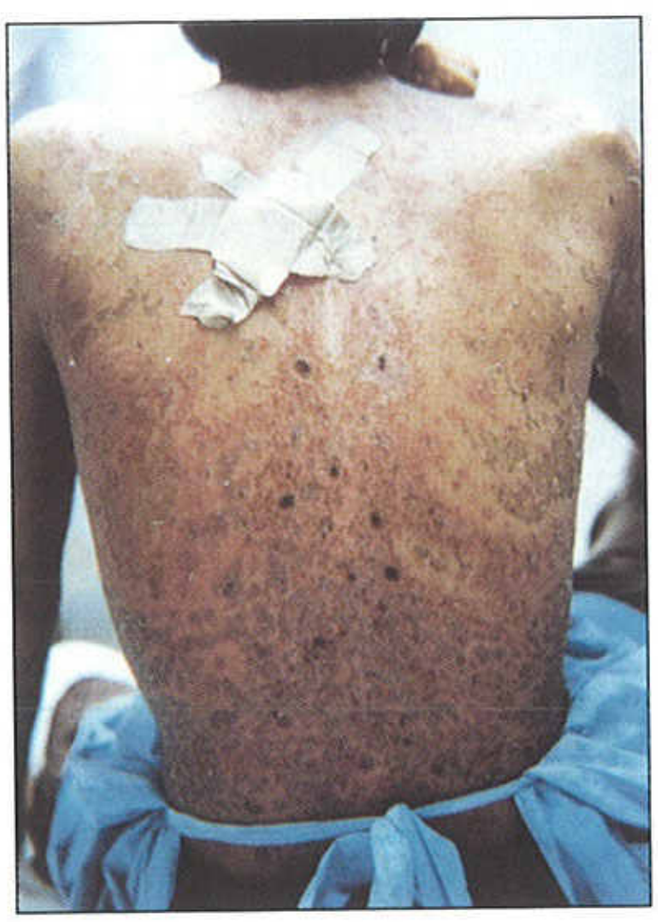

Fig 1

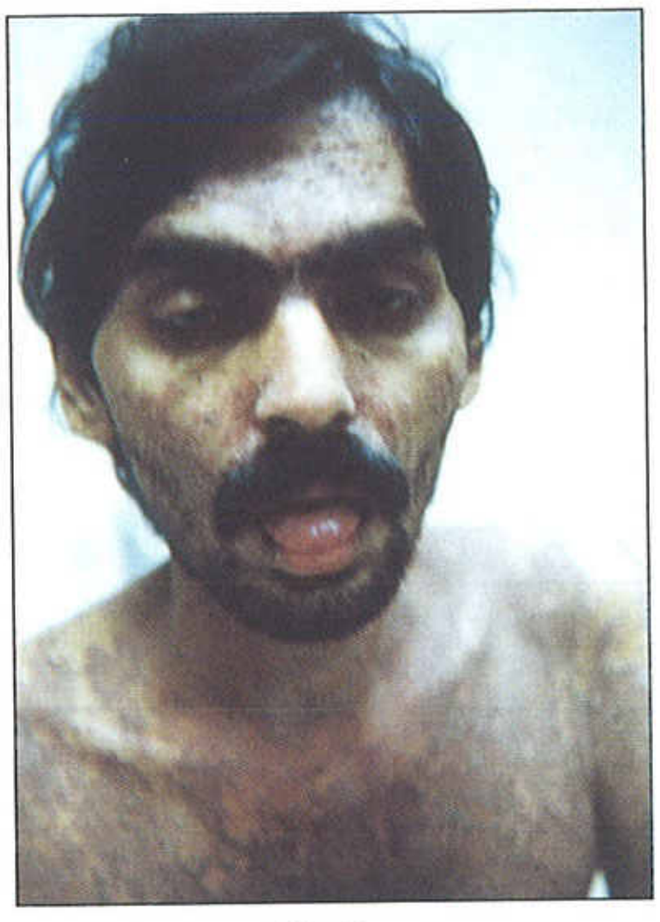

Fig 2

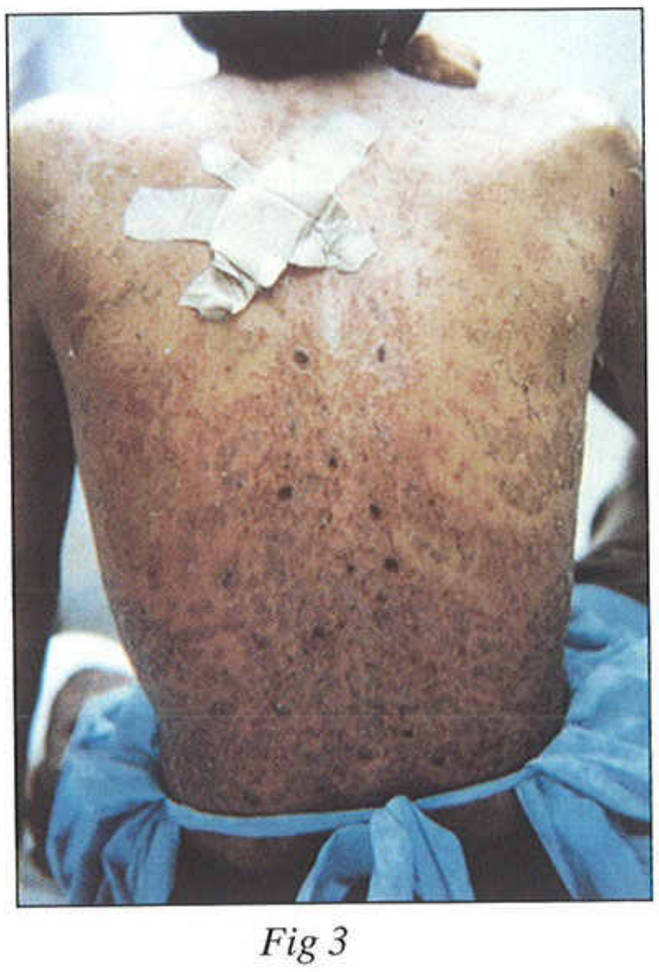

Fig 3

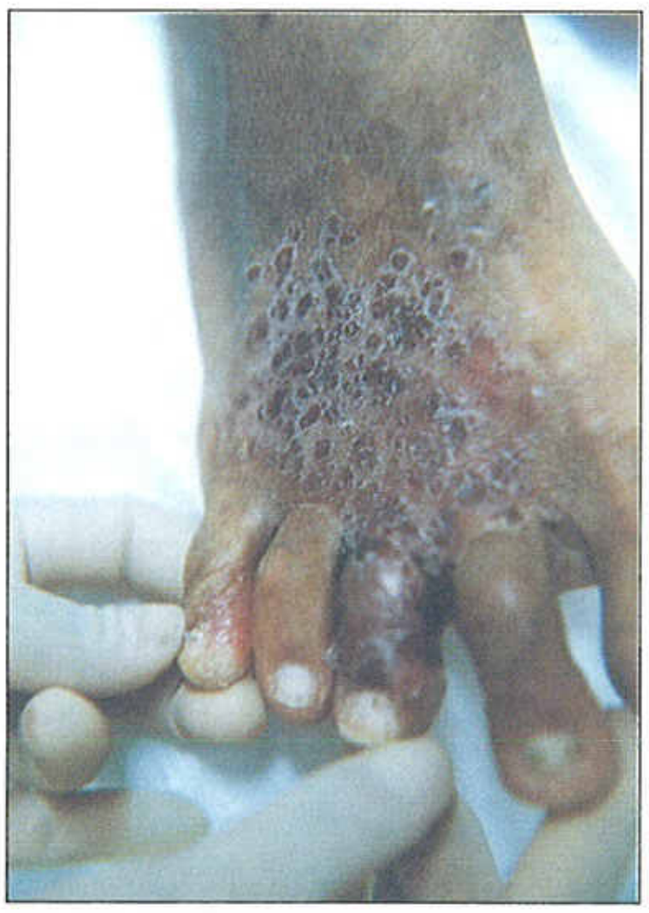

Fig. 4

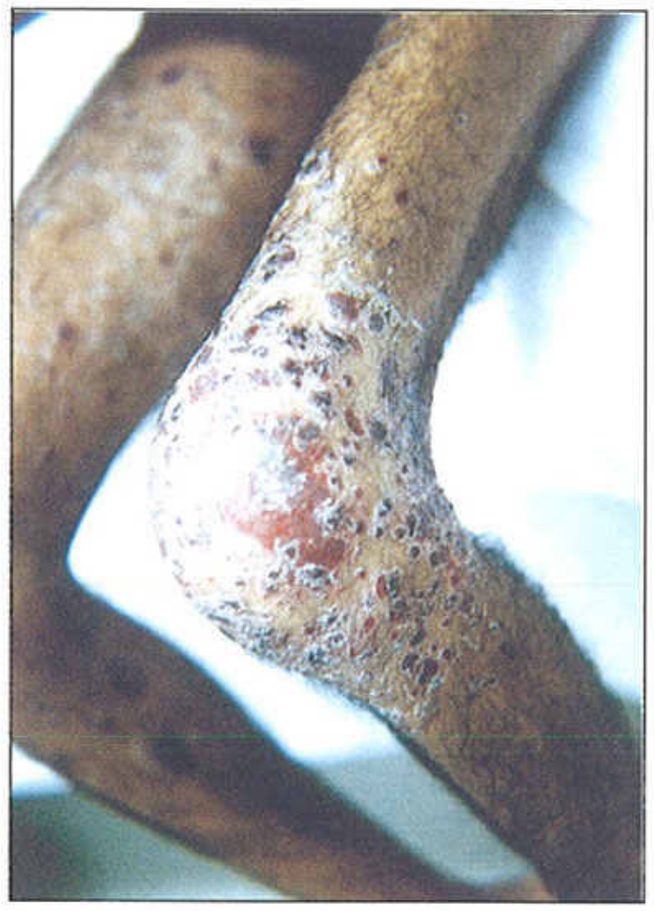

Fig. 5

Fig. 6

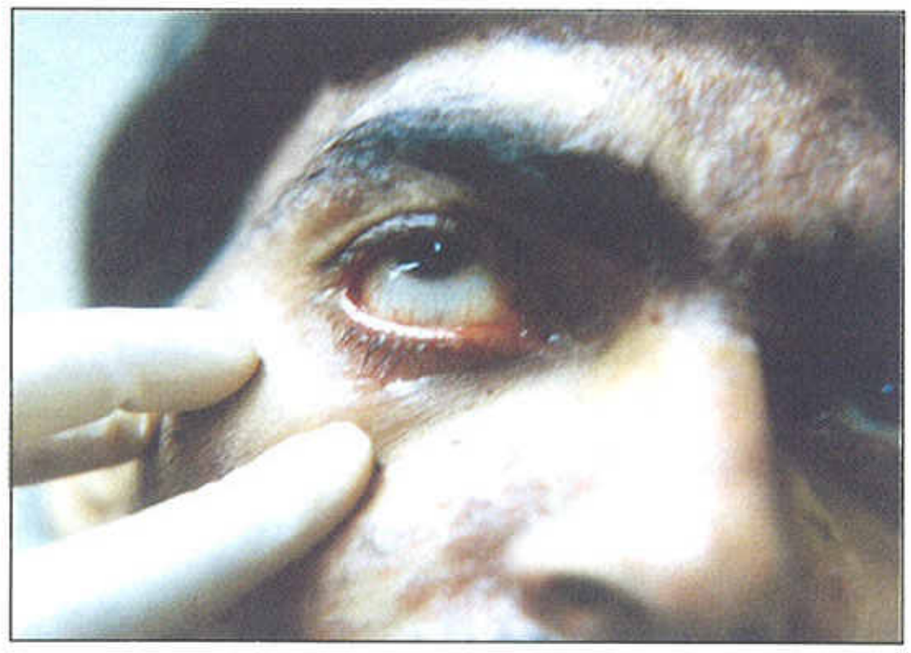

Fig. 7

eral keratitis and keratoconjunctivitis with corneal oedema and ulceration, photophobia, lacrimation and a purulent discharge [Fig.7]. Pupils and irises were normal. Visual acuity was 6/9 for both eyes.

Genital examination showed balanitis with a purulent urethral discharge [Fig.6]. We detected no lymphadenopathy or enlargement of the internal organs.

The results of laboratory and other studies are detailed in Table 1. In summary the relevant findings were leucocytosis, anaemia, High ESR, HLA-B27 POSITIVE, HIV negative, isolate of K. sp. from skin and pyogenic organisms from urethral discharge, Aspirate from left knee was sterile (no growth), C-reactive protein: positive, serum immunoglobulins : raised IgG levels, serum Zinc level:reduced, LFT:low Albumin level, Anti smooth muscle antibodies (positive), X-ray left knee (soft tissue swelling), X-ray (Tempromandibular and sacroiliac joints):Normal, Skin Biopsy: (psoriasiform picture).

Treatment and Results

The patient was treated twice daily for two weeks with antibiotics for a mixed pyogenic urogenital infection, Rifampicin 300mgm, Clindamycin 150mgm and Ciprofloxacin 250mgm, together with non-steroidal anti-inflammatory analgesics, emollients, antihistamines, chloromycetin eye drops, an antiseptic mouth wash and physiotherapy for the left knee.

The patient has since been re-examined twice in the outpatients' clinic, at 4 weeks and 8 weeks following his discharge from hospital and is showing

considerable improvement in skin, eyes, joint lesions and his urogenital condition.

Further tests for HIV have been done 8 weeks later but so far proved negative.

Discussion

Clinically this is a classical case of Reiter's disease in an adult male with non-suppurative chronic arthritis, urethritis, balanitis, kerato-conjunctivitis, exfoliative psoriasiform dermatitis and positive for HLA-B27 antigen. (1) Our findings were similar to those reported by others (2) with a polyarticular arthropathy and aseptic arthritis involving mainly of the lower limbs, bilateral kerato-conjunctivitis with herpetiform corneal lesions and a non-gonococcal urethritis with dysuria, haematuria and mucopurulent discharge.

Systemic complications of Reiter's disease are uncommon and were not found in our patient but he will need monitoring to ensure that cardiac conditions and the rarer neurological complications, do not develop. (3)

Of special interest are the positive result for HLA-B27 antigen (4,5), the low level of serum zinc and the isolation of Klebsiella species from a skin pustule. Immune factors regulate the host response to a variety of infectious agents and may interact with genetic factors as has been shown by the association of HLA-B27 antigen in both Reiter's disease and AIDS. (4,6,7) The association of Reiter's disease and HLA-B27 becomes more significant with the molecular resemblance between HLA-B27 antigen and Klebsiella species which are known to predispose patients to spondyloarthropathies. (4,5,8) It has also been suggested that an exposure to multiple opportunistic infective agents together with a low level of serum zinc could indicate sub-clinical HIV infection. (9)

There are similarities in the clinical presentation of Reiter's disease and HIV infection. HIV infection increases susceptibility to arthritogenic organisms and may directly cause an arthritis (4) which is a major finding in Rieter's disease. Furthermore, treatment of Reiter's disease with immunosuppressive agents could turn subclinical HIV infection into a fulminant AIDS with Kaposi's sarcoma. (5)

Accordingly, although HIV has not yet been shown in this case, we strongly recommend that initial investigation and subsequent follow-up of all cases of Reiter's disease should include the possibility of subclinical HIV infection. We also suggest that initial treatment should include a full explanation of the risks of sexual promiscuity and the possibility of acquiring AIDS together with the precautions that can and should be taken.

REFERENCES

1- Wilkens RF, Arnett FC, Butler T.Reiter's syndrome, evaluation of preliminary criteria for definite disease Arthritis Rheum, 24,844-849,1981

2- King A. in : Recent advances in Venereology Churchill :london, 1964

3- Good AE Reiter's disease: A review with special attention to cardiovascular and neurologic sequelae. Semin Arthritis Rheum 3, 253-286, 1976

4- Altman EM, Centeno LV, Mahal M, Bielory L. AIDS-associated Reiter's syndrome Annals of Allergy 72, 307-316, 1994

5- Brancato L, Hesu S, Skovron ML et al Aspects of the spectrum, prevalence and disease susceptibility determinants of Reiter's syndrome and related disorders associated with HIV infection. Rheumatol int 9, 134-141, 1989

6- Brewerton DA, Nicholls A, Oates JK et al Reiter's disease and HLA-B27. Lancet, 11, 996-998, 1973

7- Winchester R, Bernstein DH, Fischer HD et al The occurence of Reiter's disease and acquired immunodeficiency. Ann intern Med, 106, 19-26, 1987

8- Schwimmbeck PL, Oldstone MB. Molecular mimcry between human leukocyte antigen B27 and klebsiella: consequences for spondyloarthropathies Am J Med 85, 51-53, 1988

9- Hausmann G, Castel T, Iranzo P et al Reiter's syndrome associated with hypozincemia in a HIV positive patient. Int J Dermatol 27, 342-343, 1988

Acknowledgment

We would like to thank Dr. Wegdan abdulmajeed for her kind help and assistant.