

# CASE REPORTS

## Reiters syndrome - a case report and review of literature

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### ABSTRACT

The occurrence of Reiter's Syndrome is rare and not commonly reported in Nigeria. This paper reports a case of a 35yr old male Nigerian with Reiter's Syndrome, occurring 1-2 weeks after a bout of a dysenteric illness. The patient presented with fever, conjunctivitis, dysentery, urethritis and arthralgia. The joint pains involved the left wrist (which was swollen), the right knee and ankle joints. The patient was managed conservatively. The case is presented with a view to documenting the occurrence of Reiter's Syndrome in an African Nigerian.

**Key words:** Reiters syndrome Nigerian

**Running title:** Reiters syndrome in African Nigerian

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### INTRODUCTION

In 1916, Hans Reiter described the classic triad of arthritis, nongonococcal urethritis, and conjunctivitis (Reiters syndrome, RS) in a Prussian soldier with diarrhea, during the first world war<sup>1,2</sup>. More recently, RS has been defined as a peripheral arthritis lasting longer than 1 month, associated with urethritis, cervicitis, or diarrhea<sup>2</sup>. Symptoms generally appear within 1-3 weeks but can range from 4-35 days from onset of inciting episode of urethritis/cervicitis or diarrhea<sup>3</sup>. Signs and symptoms usually remit within 6 months. However, a significant percentage of patients have recurrent episodes of arthritis (15-50%), and some patients develop chronic arthritis (15-30%)<sup>3</sup>. Cardiac signs such as aortic regurgitation caused by inflammation of aortic wall and valve are rare. Other rare manifestations are central or peripheral nervous system lesions and pleuropulmonary infiltrates<sup>2,4</sup>.

RS is triggered by bacterial infection that enters via mucosal surfaces usually, (but not always) associated with human leukocyte antigen (HLA)-B27<sup>1,2,4</sup>. Nongonococcal venereal disease (most often *Chlamydia*) and infectious diarrhea usually precede RS. These include infections with: *Shigella flexneri*, *Shigella dysenteriae*, *Salmonella typhimurium*,

*Salmonella enteritidis*, *Streptococcus viridans*, *Mycoplasma pneumonia*, *Cyclospora*, *Chlamydia trachomatis*, *Yersinia enterocolitica*, and *Yersinia pseudotuberculosis*. *Campylobacter jejuni*<sup>1,2,4</sup>. Others include *Chlamydia pneumoniae* and *Ureaplasma urealiticum*<sup>1,2,4</sup>.

The syndrome was the first rheumatologic disease noted in association with Human Immunodeficiency Virus<sup>2</sup>. RS is most common in individuals aged between 15-35 years; and it is rarely seen in children<sup>1,2,5</sup>. The male-to-female post venereal ratio is 5-10:1, while the post-enteric ratio is 1:1. The incidence is estimated at 3.5 per 100,000, and is uncommon among Negroes<sup>2</sup>.

This paper reports a case of RS with a view to documenting the occurrence of an uncommon disease in an African Nigerian.

### CASE REPORT

Mr. S.L was a 35-year-old Nigerian driver who presented at the emergency unit of the Olabisi Onabanjo University Teaching Hospital Sagamu Nigeria, with two weeks onset of fever, dysentery, dysuria and joint pains. The joint pains involved the left wrist, (which was also swollen), the right knee and the ankle joints. There was no urethral discharge, hematuria or genital ulcer. There was associated discharging of both eyes with redness but no chest symptoms. He had not been transfused with blood in the past and there was no history of multiple sexual partners.

Physical examination revealed a middle aged man who was not pale but febrile to touch and was dehydrated. He had a swollen, tender left wrist and tenderness over the right knee and ankle joints (especially at tendon insertions - local enthesopathy). Other joints were normal. Apart from tachycardia of 114 beats / min, other systemic

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examinations were normal. Cardiac auscultation was normal.

Laboratory investigation revealed a haematocrit of 45% and a total white cell count of  $14,500/\text{mm}^3$ , neutrophils 80% and 20% lymphocytes. The erythrocyte sedimentation rate was 36 mm first hour (Winthrobe method). Urinalysis was normal while urine, stool and urethral swab cultures were negative. Rheumatoid factor and retroviral screening (HIV 1 and 2) were negative.

He was rehydrated with intravenous fluids and placed on Ibuprofen, intravenous ciprofloxacin (later changed to tetracycline) and metronidazole. The patient made marginal clinical improvement but discharged himself against medical advice within few days of admission, possibly due to financial constraints.

## DISCUSSION

RS is reported most frequently among whites, occurrence appears to be related to HLA-B27 prevalence in the population. It is uncommon in the Negroid race, when it is frequently HLA-B27 negative<sup>2</sup>.

The age and gender of this patient are in keeping with the pattern among other population, that is, male preponderance and age range of between 15-35 years. The patient presented with urethritis, arthritis and conjunctivitis about 2 weeks after the onset of dysentery. This is in agreement with documentation that most cases of RS usually follow an infection (1-3 weeks after)<sup>1,2,3,4,5</sup>. The classic triad of RS was present in this patient. The arthritis was asymmetrical, oligoarticular and mainly involved the joints of the lower extremities. Tenderness was remarkable at tendon insertions rather than in the synovium, typical of RS<sup>1,2</sup>. Furthermore, the conjunctivitis was transient and resolved without specific treatment. These are all typical findings in RS.

Features suggestive of cardiovascular, nervous and pulmonary involvement were not present in the patient. Such dermatologic manifestations as balanitis circinata, keratoderma, nail changes (onycholysis, ridging and hyperkeratosis) and superficial oral ulcers were absent in the case presented. These are known to be rare in RS<sup>1,2</sup>.

Generally, the diagnosis of RS is clinical; there are no definite diagnostic laboratory test or radiographic findings. Apart from the elevated erythrocyte sedimentation rate (ESR) and

neutrophilic leucocytosis that suggested a bacterial infection, all the laboratory investigations were negative. Elevated ESR and acute phase reactants are usually found in cases of RS commonly. Although anemia is commonly found in RS, the haematocrit of 45% in our patient must have been due to the effects of dehydration. The negative report obtained for urine, stool and urethral swab cultures in the patient does not negate a diagnosis of RS. The test may only be positive for organisms occasionally; in a sizeable minority no laboratory evidence of infection is found<sup>2</sup>. There were no facilities to carry out antinuclear antibody screening and HLA genotype of the patient. Immunohistochemistry, polymerase chain reaction and molecular hybridization may be useful in further assessment<sup>1,2</sup>.

The patient was managed conservatively with ibuprofen and antibiotics. These are the recommended medications in the management of RS<sup>1,2</sup>. It has been shown that prolonged administration of long acting tetracycline may accelerate recovery from *Chlamydia* induced RS, although therapy for other bacterial triggers of RS has shown little or no benefit. Other drugs that may be used are sulfasalazine, methotrexate, Azathioprine, and intra-articular steroid injection.<sup>2,3,6</sup>

Long term follow - up studies suggest that some joint symptoms persist in 30 to 60% of patients with RS<sup>2</sup>. Recurrences of the acute syndrome are common, and as many as 25% cases evolve into chronic illness leading to disability which may make the patient unable to work or forced to change occupation<sup>2,4,6</sup>. We do not know the outcome in this patient because he discharged himself against medical advice.

In conclusion, this case is reported to document that RS, though rare, does occur in African Nigerians. Clinicians in developing countries of Africa should have a high index of suspicion, and make attempts at proper documentation of cases seen.

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## Spontaneous rupture of bladder in puerperium

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### Abstract

Spontaneous rupture of bladder and extravasation of urine in the peritoneum without evidence of trauma is rare. This condition is an emergency. It presents in a unique way therefore, the diagnosis and treatment is usually delayed. This patient presented with an acute abdominal pain and oliguria. She had delivered normally eight days before re-admission. Investigations were done and an exploratory laparotomy was performed. There was a tear in the fundus of the bladder and the peritoneal cavity contained urine. Peritoneal lavage was done and the bladder was repaired in layers. She was put on continuous bladder drainage for three weeks followed by bladder training. The bladder resumed its normal function. Early diagnosis and appropriate management decreases the morbidity and mortality associated with this condition.

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### Case report

This was 20-year-old prime Para who had a normal delivery. She gave birth to a female baby whose Apgar score 8 and weighed 2800grammes. The labour lasted 14 hours, the second stage lasted 40 minutes and third stage 10 minutes. She was discharged from Mulago hospital in good condition.

On the ninth day post partum she reported back with severe lower abdominal pain, abdominal distension, a fever and difficulty in breathing for one day. She had opened her bowels and passed urine. Clinically she was sick looking, afebrile with cold extremities and had a mild pallor of the mucus membranes. The pulse rate was 110 beats per minute with a small volume and the blood pressure of 90/50 mmHg.

The abdomen was distended and was tender. There was guarding with rebound tenderness and there was evidence of free fluid in the fluid in the abdomen. The uterus was sub-involuted and its size was 14 weeks. Vaginal examination revealed an open cervix with foul smelling lochia.

An abdominal ultra sound scan was done.

It showed a bulky uterus, the bladder with little urine in it and free fluid in the peritoneal cavity. A diagnosis of peritonitis was made. The patient was started on antibiotics and prepared for laparotomy. The bladder was catheterised and drained only 100 mls of urine which was turbid.

At laparotomy, the abdominal cavity contained one litre of urine, which was purulent. The uterus was 14 week's in size and there was no evidence of perforation. The omentum was adherent to the bladder. The omentum was separated from the bladder. This revealed a tear in the fundus of bladder, which was seven centimetres long. The edges of the bladder were thickened and necrotic but the bladder wall was normal. The edges were refreshed and the bladder was repaired in two layers. A flap of omentum was grafted on the repaired site. A corrugated drain was left in abdomen. Continuous bladder drainage was instituted using urethral catheter for three weeks and bladder training was done. Bladder function returned to normal after four weeks. Cystoscopy was done four weeks later and the bladder was found to have healed. Histology report revealed necrotising cystitis.

### DISCUSSION

Spontaneous bladder rupture is usually described in association with recent trauma, malignant diseases, anatomical outflow obstructions, indwelling catheters, instrumentation, neurogenic bladder or a combination of

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