

Acute multifocal retinitis preceded by a flu-like illness: a retrospective review of 29 cases

Moncef Khairallah, Sana Khochtali, Imen Ksiaa, Marouane Lahdhiri, Sonia Zaouali,
Salim Ben Yahia, Bechir Jelliti



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Department of Ophthalmology, Fattouma Bourguiba University Hospital,
Faculty of Medicine, University of Monastir
Monastir, TUNISIA
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Purpose :

- Our purpose was to review the charts of 29 patients presenting with acute multifocal retinitis and prodromal flu-like disease.

Patients & Methods:

- Retrospective review of the charts of 29 patients (53 eyes).
- Setting: department of Ophthalmology, Fattouma Bourguiba University Hospital, Monastir, Tunisia, from January 1st, 2003 to June 1st, 2015.
- Patients with 3 or more retinitis lesions in at least one eye, with at least one lesion of less than 500 µm in size, and with a history of fever and general malaise were included.
- All patients had complete ophthalmological examination, fundus photography, fluorescein angiography. A subset of patients had optical coherence tomography and/or indocyanine green angiography.
- An extensive work-up was performed including a detailed comprehensive medical history, examination by an internist and an infectious disease specialist, a chest X-ray, and laboratory tests for syphilis, human immunodeficiency virus, Bartonella and Rickettsia.

Results:

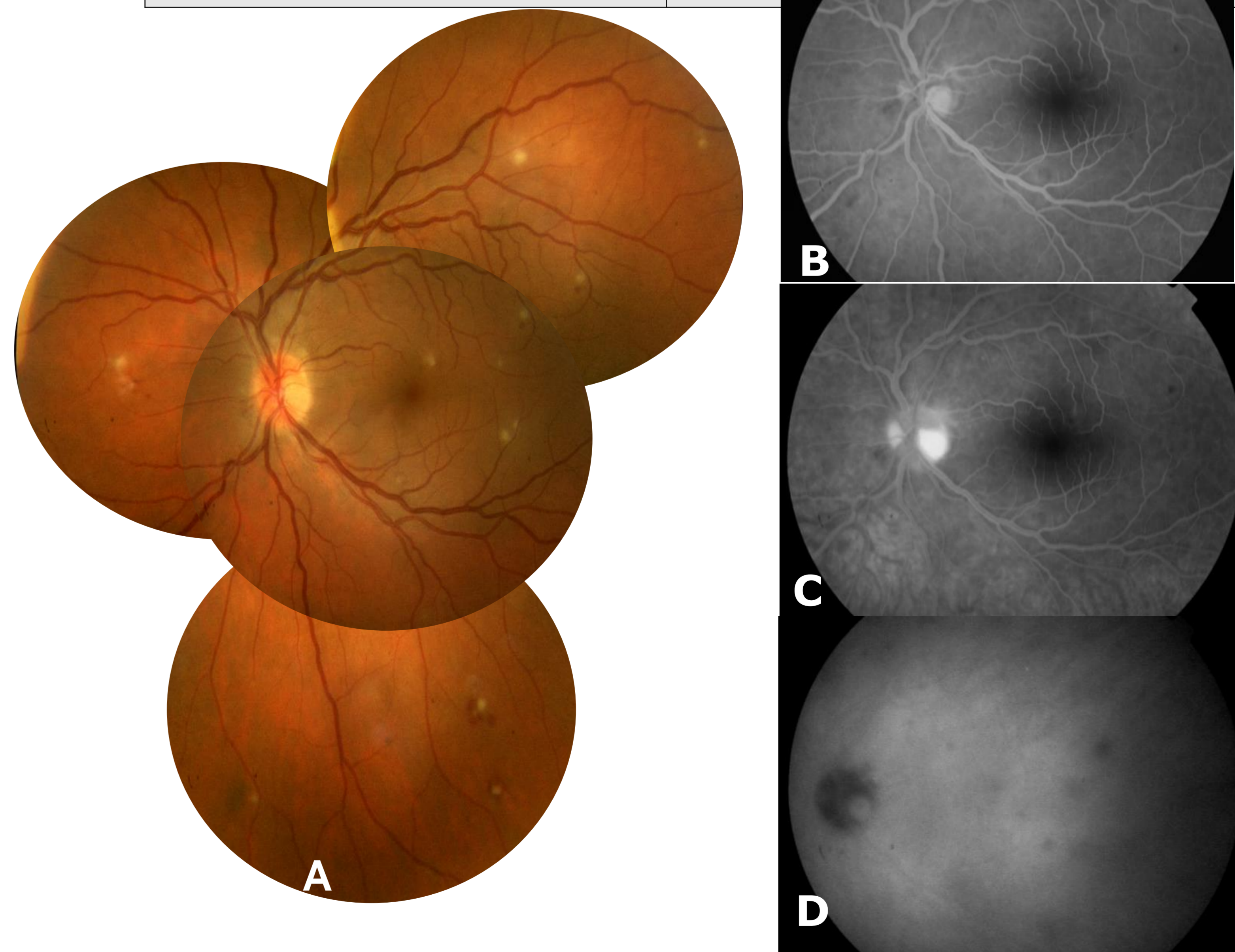
- Characteristics of patients and clinical features are presented in table 1.
- Etiology of retinitis :
 - *Rickettsia conorii* infection in 21 patients (72.4%),
 - *Rickettsia typhi* infection in 4 patients (13.8%),
 - Cat-scratch disease in 3 cases (10.3%).
 - Idiopathic in one patient (3.5%)
- All patients received an antibiotic therapy (oral doxycycline in 27 patients (93.1%) and ciprofloxacin in 2 patients (6.9%)).
- White retinal lesions disappeared in 3 to 10 weeks, without obvious scarring.
- Final visual acuity was 20/25.

Table 1. Characteristics of patients

Mean age	35.2 years (range, 17-59)
Gender	Female (58.6%), male (41.4%)
Ocular complaints	Floaters (18 patients; 62.1%) Blurred vision (9 patients; 31%) Scotomata (2 patients; 6.9%)
Vitritis	Mild (37 eyes; 69.8%), Absent (16 eyes; 30.2%)
Number of white retinal lesions	3 to 15
Size of white retinal lesions	150 to 1200 µm
Associated ocular findings	Optic disc swelling (6 eyes; 11.3%) Macular star (4 eyes; 7.5%) Branch retinal artery occlusion (3 eyes; 5.7%) Exudative retinal detachment (2 eyes; 3.8%)

Figure 1

A 42-year old patient with a 2-week history of fever and malaise, complained of floaters. Composite fundus-photograph of the left eye showing multiple small white lesions in the posterior pole and the peripheral retina (A). These lesions were isofluorescent on fluorescein angiography and associated with late optic disc staining (B,C). Late-phase indocyanine green angiography revealing hypofluorescent lesions (D). Work-up found a positive *Rickettsia conorii* serology.



Conclusions

- Our series is the largest to characterize acute multifocal retinitis, and the first to associate it with rickettsial disease in more than 85% of cases.
- Epidemiological characteristics, ocular features and course of the disease in our patients were consistent with previous descriptions of “idiopathic” acute multifocal retinitis.
- Rickettsial infection should be highly suspected in patients with acute multifocal retinitis, preceded by systemic flu-like illness. A negative rickettsial serology may result from the absence of the infection, or the lack of assessment of the involved serotype.