

Rickettsial infections: not as benign as we thought !

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Introduction

- Rickettsiosis is a tick-borne zoonosis caused by *Rickettsia spp.* It is long believed a relatively benign disease, however severe complications may be described mainly in adults.
- We aim to determine clinical, biological and therapeutic characteristics of rickettsiosis.

Methods

- Through a retrospective study (1992-2015), all patients with rickettsial infections admitted in the Department of Infectious Diseases were enrolled. The prevalence of severe rickettsiosis as well as clinical and laboratory features were subsequently recorded.

Results

- We have included 388 patients. (Figure1)
- The mean age was 68.7 ± 12 years.

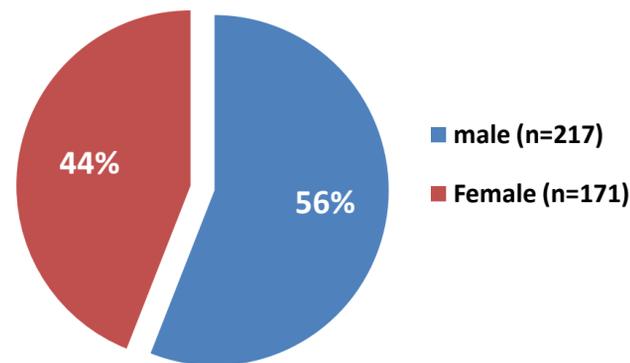


Figure 1: Gender distribution

- Living in rural areas : 353 cases (91%)
- A history of contact with animals : 353 cases (91%)
- Hospitalisation between June and August: 51% of patients
- Mean delay of consultation : 7.9 ± 11 days
- The clinical manifestations were summarize in Table 1.

Table 1: Clinical manifestations

Clinical manifestations	Number	Percentage (%)	
Fever	387	99.7	
Skin rash	maculopapular	316	98.1
	purpuric	6	1.9
Joint pain	318	81.4	
Headache	293	75.5	
Eschar	93	36	

- **Laboratory findings** included a thrombopenia in 56% and liver cytolysis in 55% of cases. (Table2)

Table 2: Laboratory findings

Laboratory findings	Number	Percentage (%)
Thrombopenia	217	56
Liver cytolysis	213	55
Hyponatremia	95/307	31
Leucopenia	70	18

- Serological tests were performed in all patients.
- Diagnostic yield was 100% and it revealed predominantly *Rickettsia conorii* in 312 cases (80.4%) while *Rickettsia typhi* was incriminated in 49 cases (12.6%).

- Doxycycline remained the treatment of choice prescribed in 249 cases (64,2%) (Figure 2).
- The mean duration of treatment was 9 ± 4 days.

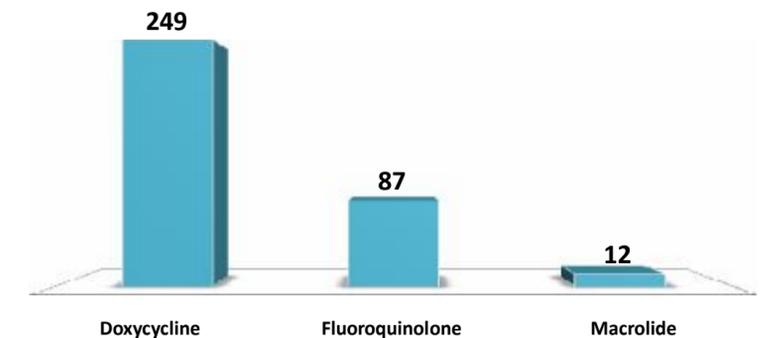


Figure 2: Rickettsial infections' treatment

- Complications and severe forms of the infections were :
 - **Neurological involvement** was recorded in 48 patients (12.4%) with principally meningitis in 42 cases and encephalitis in 6 cases.
 - **Acute renal failure and myocarditis** were revealed in 5.9% and 1.3% respectively.

- Favorable outcome with healing occurred in 386 cases (99.5%). Nineteen patients died (0.5%).

Conclusion

- Rickettsial infection is the most common cause of acute fever in hot season. Although it is qualified as benign, it claims more attention because of severe forms which are frequent. An early diagnosis and prompt treatment are crucial to ensure better outcome.