

WHAT IS DIFFERENT WHEN DEALING WITH BACTEREMIC BRUCELOSIS ?

H. Ben Ayed, M. Koubaa, F. Smaoui, Y. Mejdoub, T. Ben Jemaa, I. Maaloul, S. Yaich, C. Marrakchi, M. Ben Jemaa

Infectious diseases department, Hedi Chaker University hospital, Sfax, Tunisia

Community health and epidemiology, Hedi Chaker University hospital, Sfax, Tunisia

INTRODUCTION

- Bacteriemic brucellosis (BB) is an acute febrile disease often associated with digestive complaints and biological inflammatory syndrome.
- In this perspective, our study aimed to determine predictive factors of bacteremia in patients with brucellosis.

METHODS

- Study design :** retrospective study
- Inclusion criteria :** Patients with documented brucellosis treated in infectious diseases department of Hedi Chaker University hospital, Sfax, Southern Tunisia.
- Study period :** between 1990 and 2014

RESULTS

- Among 161 cases of brucellosis, **bacteriemic brucellosis (BB) was documented in 30 cases (18.6%) with *Brucella melitensis* in all cases.**
- Mean age of patients = **39.6 ± 17 years**
- Sex ratio (Male/female) = 1.7
- Patients with BB had more fever, nausea, splenomegaly and more acute forms (Table 1)

Table 1 : Comparison of clinical signs between bacteriemic and non-bacteriemic brucellosis

	BB	Non-BB	HR	P
Nausea (%)	16.7	4.6	4.2	0.033
Fever (%)	93.3	78	4	0.049
Splenomegaly (%)	20	7.6	3	0.049
Acute forms (%)	66.7	42	2.7	0.015

Biological particularities :

- More anemia (76.7% vs. 51.6%; HR= 3.2 ; p = 0.013)
- Higher CRP value (85.5 ± 45 vs. 35 ± 20 ; p< 0.001).

- Antimicrobial regimens :** Rifampicin + Doxycycline for 6 weeks in both bacteriemic and non-bacteriemic brucellosis (86.7% vs. 72%; p= 0.1).
- Favorable outcome** significantly associated with BB (Figure 1).

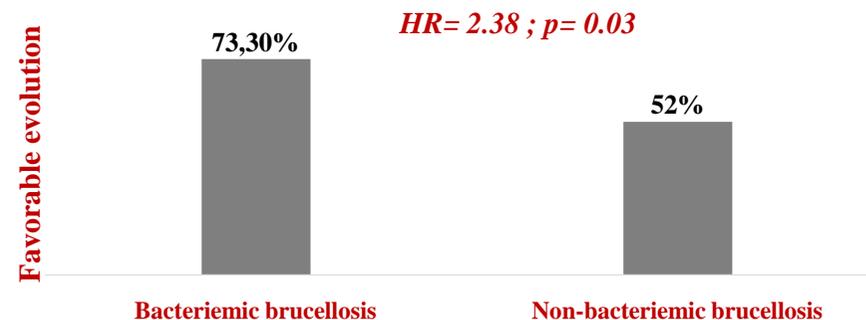


Figure 1 : Comparison of Favorable outcomes between bacteriemic and non-bacteriemic brucellosis

- Multivariate analysis using logistic regression:** presence of nausea, acute form of brucellosis and *C reactive protein value* were independent predictors of BB (Table 2).

Table 2 : Independent predictors of bacteriemic brucellosis

Independent factors	Ajusted HR	CI 95%	P
Nausea	9	[14 - 60]	0.002
Acute forms of brucellosis	4.5	[1.2 - 17]	0.025
C-reactive protein value	1.12	[1.1 - 1.2]	0.02

CONCLUSION

- Our study highlighted clinical and biological particularities of bacteriemic brucellosis. These findings may help clinicians to establish a prompt diagnosis and suitable treatment, two main conditions to improve patients' prognosis.

makram.koubaa@gmail.com mounir.benjemaa@rns.tn