Does the suspicion of Ebola virus disease have consequences on the diagnosis delay for other infectious diseases?


P0088

On behalf of the EbolaFrance working group, InVS, SPILF-COREB Emergences, INSERM, France

BACKGROUND

The 2014-2015 Ebola virus disease outbreak in West Africa is the largest in history, and has affected more than 28,500 patients, and killed more than 11,000.

Outside of Africa, patients returning from an endemic area were classified as Ebola suspect cases if they presented with fever within 21 days after leaving an area at risk.

In most countries, a national surveillance system was implemented, including specific rules for the management of suspect cases, to ensure that no secondary transmission occurs.

However, most of these suspect cases turned out to be more common infectious diseases, including malaria.

OBJECTIVES

To characterize patients suspected of Ebola virus disease outside of an endemic area, focusing on
- the final diagnosis
- the delay associated with Ebola virus disease suspicion in the diagnosis process for these patients.

METHODS

Retrospective observational multicentric study

Cases suspected of Ebola virus disease in France from April, 2014 to August, 2015.

Inclusion criteria
- Fever
- Stay in an Ebola endemic area within 21 days before fever onset.

Data were collected on a standardized questionnaire, by physicians in charge.

Study approved by the national ethics and data protection committees.

RESULTS

Patients characteristics

34 patients fulfilled inclusion criteria
- 19 males, 15 females
- Median age, 33 years (IQR, 26-43)

They returned from
- Guinea (n=21)
- Nigeria (n=4)
- Sierra Leone (n=3)
- Mali (n=3)
- Liberia (n=2)
- Congo (n=1).

Symptoms

For 7 patients, fever appeared in the endemic area; for the remaining 27, fever appeared after arrival in France, with a median delay of 1 day (IQR, 0-8)

Other symptoms included
- asthenia (n=27)
- headache (n=20)
- myalgia (n=18)
- abdominal pain (n=10)
- diarrhea (n=9).

Management

Patients were admitted with a median delay of 1 day (0-5) after fever onset
28/34 (82%) were isolated with Ebola specific precautions.
For a median duration of 8 hours (IQR, 2-30).

Diagnosis delay

For 12 patients (35%), Ebola suspicion was associated with a diagnosis delay
- for a median duration of 3 hours (2-36)
- with no clinical consequences.

Outcome

A final diagnosis was obtained in 28 patients (Table)
- malaria (n=10; 36% of diagnosis)
- pneumonia (n=3)
- gastroenteritis (n=3)
- influenza-like illness (n=2)
- pharyngitis (n=2)
- cellulitis, pyelonephritis, tuberculosis, HIV, salmonellosis, shigellosis, influenza B, seizures (one patient each).

No case of Ebola virus disease was diagnosed in France during the study period.*

All patients survived

* Two previously confirmed cases transferred from Guinea (n=1), and Sierra Leone (n=1), were not included in this study.

CONCLUSION

Most patients suspected of Ebola virus disease in France during the 2014-2015 outbreak were finally diagnosed with other infectious diseases, mostly malaria.

Ebola suspicion was associated with a diagnosis delay in 35% of patients.

Diagnosis delay was limited in most instances (median, 3 hours; IQR 2-36), with no clinical consequence.

Limitations

- Limited sample size (n=34), and retrospective design
- Recent reports suggest that Ebola suspicion may delay adequate management of tropical diseases, including malaria.

References
