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Letter to the Editor

Febrile rhabdomyolysis of unknown origin in refugees coming from West Africa through the Mediterranean to Calabria, Italy

Silvia Odolini et al. have recently reported 48 cases of severe febrile rhabdomyolysis in refugees arriving in Italy from West Africa and admitted to 12 centers from May 2014 to December 2016 (Odolini et al., 2017). We describe the experience in Vibo Valentia, Calabria, a region not covered in their report.

We retrospectively reviewed the medical records of the 15 patients admitted with severe febrile rhabdomyolysis to Jazzolino Hospital of Vibo Valentia from May 2014 to May 2017. All were refugees from West Africa, 13 were males and the mean age was 21.9 years (range 16-31; Table 1). They all departed from Lybia on board 10 meter inflatable boats (with 150-200 refugees each) and presented to the hospital 3 to 18 (mean 10.2) days after arriving in Calabria, therefore in a considerably shorter time compared to Odolini's report. All patients had high fever (>39°C), intense muscle aches and inability to stand and walk. C reactive protein, AST, ALT, myoglobin, CPK, LDH were elevated in all cases whereas creatinine, sodium and potassium levels were normal (Table 1). None of the patients was anti-HIV, HBsAg or anti-HCV positive. Out of six patients who accepted to answer specific questions, four stated that they had inhaled fuel, had been beaten or had fasted for 72 hours. None of the six had been forced to take drugs, had used alcohol, or had received hyperalimentation after arrival.

All patients survived; twelve recovered completely within two weeks after supportive treatment with hydration, one was admitted to the intensive care unit due to septic shock and two had pneumonia.

During the three-year period under consideration, around 1,500 refugees were assessed at Jazzolino Hospital for various complaints; hence, febrile rhabdomyolysis was observed in around 1% of presenting migrants. Our results in the largest number of patients observed in a single Italian hospital confirm that febrile rhabdomyolysis of unknown origin occurs in migrants from West Africa; we think that active surveillance for the disease is needed in this migrant population and prospective studies are warranted to try and establish the etiology.

Table 1
Summary data of 15 cases of rhabdomyolysis observed from May 2014 to May 2017 in "Jazzolino" Hospital, Vibo Valentia, Italy.

Mean age (years)	21.9 (range 16–31)
Males No. (%)	13 (86.6%)
No. of patients coming from Nigeria	6
No. of patients coming from Gambia	3
No. of patients coming from Ivory Coast	3
No. of patients coming from Liberia, Ghana, Senegal	3 (1 from each country)
Departure port location	Libya
Mean incubation (days from arrival in Italy)	10.2 (range 3–18)
Hepatomegaly	7/11 recorded
Splenomegaly	3/11 recorded
ESR mean value	33.9 mm/hr
CRP	Raised (in 15/15 cases)
CRP mean value	51.46 mg/L
AST, ALT	Elevated (in 15/15 cases)
AST/ALT mean values	483/156 IU/L
Myoglobin	Raised (in 15/15 cases)
Myoglobin mean value	1,775 ng/ml
CPK levels	Elevated (in 15/15 cases)
CPK mean value	13,353 IU/L
LDH	Raised (in 15/15 cases)
LDH mean value	1,246 IU/L
Gamma globulins	Increased in 14/15 cases
Alpha1 globulins	Increased in 15/15 cases
Alpha2 globulins	Increased in 13/15 cases
Anti-HIV, HBsAg, anti-HCV	Negative in 15/15 cases
Coxsackievirus serology	Negative in 2/2 patient tested
CMV and EBV IgM	Negative in 6/6 cases tested
CMV and EBV IgG	Positive in 6/6 cases tested

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References

Odolini S, Gobbi F, Zammarchi L, Migliore S, Mencarini P, Vecchia M, et al. Febrile rhabdomyolysis of unknown origin in refugees coming from West Africa through the Mediterranean. Int J Infect Dis 2017;63:99–100.

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