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YELLOW FEVER OUTBREAK
AN EXPERIENCE IN AN ANGOLAN ICU

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BACKGROUND

Yellow fever is a vector-borne disease affecting humans and non-human primates in tropical areas of Africa and South America. *(1)*

On January 21 2016, Angola notified WHO of a yellow fever's outbreak.

The first case, with onset date on December 5 2015, was identified in the municipality of Viana near our capital, Luanda. *(2)*

Until April 17, 1.708 suspected cases where reported in 16 of the 18 Angolan provinces, including 238 deaths making a Case Fatality Rate of 13.9%

OBJECTIVE

To determine clinical characteristics and outcomes of yellow fever among critically ill patients admitted to Clínica Sagrada Esperança's Intensiv-Care Unit.

METHOD

A retrospective review of the patient records was conducted.

Patients admitted with laboratory confirmation of yellow fever were included in the study.

The diagnostic tests performed were IgM antibody capture enzyme-linked immuno sorbent assay (MAC-ELISA) and polymerase chain reaction (PCR).

The demographic and clinical characteristics, laboratory parameters and survival were analyzed.

RESULTS

A total of 39 cases with suspiction of yellow fever where found, from wich 16 got confirmation of yellow fever by a laboratory in Dakar. Among them where eleven adults and five infants, mostly males (68%). *(Table 1)*

	SURVIVORS (4)	NON-SURVIVORS (12)
Females (n) - %	0	(5) - 100%
Males (n) - %	(4) - 36.36%	(7) - 63.63%
Age - Mean (min, max)	15,75 (4-26)	22,75 (8-39)

TABLE 1 - Demografic data of the yellow fever patients.

On admission, the mean SOFA score was 9.56±2.70, and SAPS 3 was 63.87±7.17 with a mean predictive death rate of 44%, with an adjusted mortality rate of 1.7. *(Table 2)*

	SURVIVORS (4)	NON-SURVIVORS (12)
SAPS 3 - Mean (±SD)	60,25 (±4,34)	65,08 (±7,66)
LOS - Mean (min, max)	11,25 (5-20)	4,5 (1-15)
Mortality Rate n (%)	-	12 (75%)

TABLE 2 - Severety and mortality rate of yellow fever patients.

On examination all the patients presented fever, shivers, headaches, weakness, nausea, vomiting, jaundice and consciousness disorders.
Eight (56.2%) had hemorrhagic manifestations.

Half of them were coinfected with Plasmodium falciparum malaria, four (25%) with Dengue fever, one with leptospirosis and one with hepatitis B virus. *(Table 3)*

COINFECTION	SURVIVORS (4)	NON-SURVIVORS (12)
Malaria - n	2	6
Leptospirose - n	0	2
Dengue - n	1	4
Chikungunya- n	0	0
Positive serology for HBV - n	0	1
Positive serology HCV - n	0	0

TABLE 3 - Co-Infections in yellow fever patients.

The mean length of stay in the ICU was 6±5.9 (1-20) days. In the first day, 87.5% presented with bilirubin above 6 mg/dL, and creatinine above 4mg/dL. *(Table 4)*

TOTAL	SURVIVORS (4)	NON-SURVIVORS (12)
Bilirrubin (mg/dl) Mean ± SD	28,33 (±25,89)	11,91 (±7,98)
Creatinine (mg/dl) Mean ± SD	2,60 (±3,16)	6,23 (±4,72)
pH , Mean ± SD	7,53 (±0,11)	7,34 (±0,10)
Lactate (mmol/L) Mean ± SD	4 (±2,98)	5,51 (±4,56)
pcr (mg/dl), Mean ± SD	2,82 (±2,67)	10,43 (±9,18)

TABLE 4 - Abnormal laboratory values at admition of yellow fever patients.

During their stay 93.75% (15) required ventilatory and vasopressor support and 53.75% (9) required renal support.

From the twelve (75%) whom died, six occurred in the first 48h. *(Table 2)*

CONCLUSION

Yellow fever is a hyperacute disease with a very high mortality, even with advanced vital support.
So, the only way to avoid this fatal outcome is prevention.

REFERENCES

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