In the memory of Jean Jacques Lefrère
Passive immunotherapy for AIDS

Farhad Heshmati
MD, PhD
WAA/SFH joint congress
Paris, April 27-29 2016
Doctor Jean Jacques Lefrère
Hematologist, Researcher

And

Mister Lefrère
Writer

F Heshmati. in the memory of JJ Lefrère. WAA/SFH 2016
Jean Jacques Lefrère

- Professor of Hematology at the Paris Descartes University
- Director of the National Institute of Blood Transfusion
- National expert in transfusion and transfusion security, prions, viruses, transmissible agents by blood transfusion,
- More than 300 papers in international reviews
- Many medical books
  - use of the blood components
  - transfusion in Hematology
He was a pioneer of Passive Immunotherapy in AIDS
Plasma therapy consists in the transfusion of plasma to patients generally suffering from a severe infection, in the absence of curative treatment.

- Plasma is obtained from:
  - either voluntary healthy immunized individuals
  - or convalescent persons

- Plasma therapy has been used since the Spanish flu in 1917–1918, and then regularly when viral epidemics threatened vulnerable populations, the last reported occurrence being the 2013–2015 Ebola virus outbreak in West Africa.
In the 1980th decade, a terrible and lethal viral epidemic appeared: AIDS epidemic.

We learned soon that:

- It is due to a virus (1984)
- The serological screening is possible (1985)
- The progression is slow
- Terminal issue is always lethal
- There is no efficient vaccine (until now)
- No efficient treatment
- First anti-retroviral drug, Zidovudine (1987)
- In 1999 (WHO): AIDS was the 4th main cause of death worldwide and number one killer in Africa. 14 millions people had died from AIDS since the start of the epidemic.
The only available drug was Zidovudine (1987)

- Its efficiency was limited by time
- Responsible of the emergence of resistant viruses
- Issue was lethal

- Decrease and vanishing of anti P24 Ab was accompanied by the progression of the disease (Alesi -1989).
- The idea for using the plasma Ab for terminal-phase patients by J.J. Lefrère and D. Vittecoq was proposed
Passive immunotherapy in AIDS: A double-blind randomized study based on transfusions of plasma rich in anti-human Immunodeficiency virus 1 antibodies vs transfusions of seronegative plasma

D. Vittecoq, F. Heshmati, J.J. Lefrère
Randomized double-blind controlled trial

- 86 symptomatic patients randomized to receive plasma rich in anti-HIV1 Ab or standard seronegative plasma
- 300 ml plasma perfusion every 14 days for 1 year and then every 28 days
- Zidovudine and other conventional prophylactic treatments were associated
Plasma donors were selected among symptomless seropositive individuals with > 400x10^6 CD4 lymphocytes

- Negative P24 Ag
- High anti-P24 concentration
- Negative for other standard serological screening
- Plasma were heat-inactivated before infusion (56°C, 30 min)
Clinical benefit from passive immunotherapy was observed in:

* Delaying the appearance of first AIDS-defining events (p<0.009)
* Reducing cumulative incidence of such events (3 fold)
* 7 deaths in the treatment group vs. 11 in the control group (p = 0.27)
* Less hospitalization
Results 2

* 47 patients died or exhibited new AIDS-defining event, 18 in the treatment group and 29 in the control group (p = 0.009)
* No clinical benefit after 1 year period
* No side effects in plasma donors
Doctor Lefrère
during the days of the week
and
Mister Lefrère
literature writer during WE
Jean Jacques Lefrère
Rimbaud’s Doctor

- Biography and 1300 pages of documents on the Poet Rimbaud
- Anthology of Pia and Caradec
- Books on Lautréamont and Laforgue
Les Saisons littéraires de Rodolphe Darzens suivi de Documents sur Arthur Rimbaud

Jean-Jacques Lefrère

Sciences humaines

Parution :

27/05/1998
Isidore Ducasse
Jean-Jacques Lefrère
Histoire
Parution :
27/05/1998
Rimbaud à Aden
Jean-Jacques Lefrère
Jean-Hugues Berrou
Pierre Leroy
Histoire
Parution :
03/05/2001
Jules Laforgue

Jean-Jacques Lefrère

2005
Rimbaud au Harar
Jean-Jacques Lefrère
Histoire
Parution :
24/04/2002
Che Guevara, images
Jean-Jacques Lefrère
Jean-Hugues Berrou
Témoignages/Doc/Actu
Parution :
01/10/2003
Rimbaud ailleurs
Jean-Jacques Lefrère
Jean-Hugues Berrou
Pierre Leroy
Histoire
Parution : 26/05/2004
Jean-Jacques Lefrère
Jean-Paul Goujon
'Ôte-moi d'un doute...
2006
Arthur Rimbaud
Correspondance
2007
La plus vieille énigme de l'humanité
Jean-Jacques Lefrère

2013
As told Rimbaud: «... l’horloge de la vie s’est arrêtée tout à l’heure. Je ne suis plus au monde...»,
The life clock stopped just now, I'm not here any more
Thank You