

Prevalence of resistance to at least one drug in treated HIV infected patients with Viral Load > 1000 copies/ml in 2004

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BACKGROUND

Surveillance of resistance in treated patients with detectable viral load is important both because of the risk of spreading resistant viruses and to evaluate proportion of patients for which new drugs with minimal cross-resistance are needed.

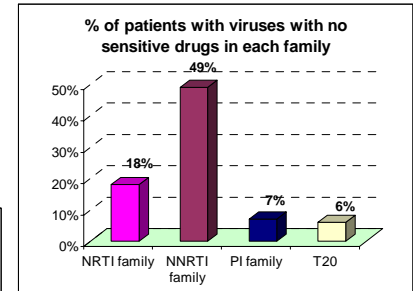
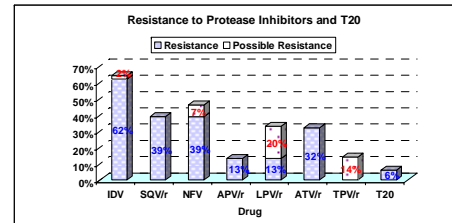
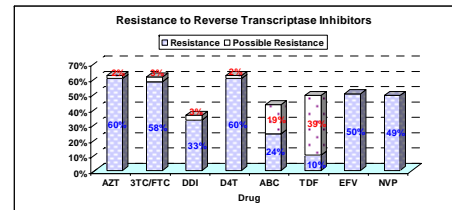
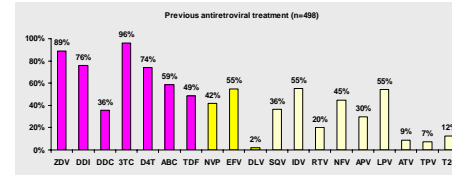
METHODS

- Resistance mutations were systematically sought in samples from 498 consecutive treated HIV infected patients with viral load > 1000 copies/ml seen in 28 specialized centers throughout metropolitan France and 1 in Switzerland with a prescription for viral load in June 2004.
- The protease, reverse transcriptase (RT) and gp41 genes of plasma virions were sequenced. Primary and secondary protease, RT and gp41 gene mutations were identified from the International AIDS Society resistance testing USA panel.
- The genotype results were interpreted for each drug by using the ANRS algorithm (July 2005 version 13). Weighted analyses were used to derive representative estimates of the percentage of patients with resistance mutations and resistance to a drug with the weight based on the number of patients followed in each center.
- Results are expressed with median [interquartile range] or n (%).

RESULTS

- Number of patients included=498.
- Median age =42.5 years [38.6-48.1]
- Known duration of HIV infection was 12 years [8.0-16.0].
- Median number of ARVs exposure= 9 [6-12].
- 12% had received T20.

Patients characteristics			Mutation and Resistance		
		n(%)			Median[Q1-Q3]
Sex	Men	379 (77%)	Number of resistance mutations detected	NRTI	4[1-6]
	Women	113 (23%)		NNRTI	0[0-1]
	Homo-bisexual	201 (42%)		PI	4[2-8]
Exposure group	Heterosexual	153 (32%)	Number of drug to which the viruses were not sensitive	NRTI	3[1-5]
	IV Drug user	75 (16%)		NNRTI	0[0-2]
	Unknown	51 (11%)		PI	1[0-5]
		Median[Q1-Q3]			n(%)
Number of drug exposure	NRTI	5[4-6]	Resistance to at least one	ARV	440 (88%)
	NNRTI	1[1-1]		NRTI	383 (77%)
	PI	3[1-5]		NNRTI	249 (50%)
Duration of prior antiretroviral therapy	NRTI	8.1 [5.9-10.2]	% of patients with viruses with no sensitive drug in	PI	329 (66%)
	NNRTI	4.7 [3.4-5.8]	1 family		184 (37%)
	PI	7.0 [4.1-7.8]	2 families		77 (15%)
Immunovirology	VL cp/ml log ₁₀	4.0 [3.5-4.7]	3 families		18 (4%)
	CD4 cells/mm ³	267 [146-430]			



CONCLUSIONS

In France, **80.3 %** of patients followed in hospital were receiving ARV in 2004 and **21.3 %** had viral load > 1000 copies/ml (French Hospital Database on HIV data).

Therefore, although resistance to at least one ARV was frequent in treated patients with viral load > 1000 copies/ml:

- 18.8 %** of treated patients could contribute to the transmission of resistant viruses and,
- among those in care, only **3.3 %** of patients with complete resistance to at least 2 families of drugs are in urgent need of new drugs with limited cross-

Acknowledgements

ANRS AC11 Resistance study group