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TRANSMISSION OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION TO HOUSEHOLD CONTACTS OF PERSONS WITH CONGENITAL HEMATOLOGIC DISORDERS.

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The Transfusion Safety Study is collecting data concerning the transmission of transfusion-acquired infections from patients with congenital hematologic disorders to household members. Of 233 patients for whom information is presently available, 128 (55%) were anti-HIV-positive. The 128 positive patients lived in 123 households with 174 members; 16 contacts were positive by EIA and immunoblot.

Type of contact	Relationship	(+)/Total
Sexual	Homosexual	1/1
	Heterosexual	12/56 (21%)
Non-sexual	Parent	0/71 (0%)
	Sibling	0/18 (0%)
	Offspring	3/21 (14%)
	Other	0/7 (0%)

These data provide further evidence of relatively high risk of HIV infection of sexual contacts. The three anti-HIV-positive children are all infants born to anti-HIV-positive wives of infected hemophiliacs. Passively acquired antibody has not been excluded for two; the third was positive at ten months of age. Thus, vertical transmission may be a very important mechanism of perpetuating the HIV reservoir.

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RISK FACTORS FOR AIDS AND ARC IN MULTITRANSFUSED HAEMOPHILIACS: ASSOCIATION OF A WEAK GAG P 18 IN WESTERN BLOT (WB) AND IMMUNE THROMBOCYTOPENIA?

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Lymphocyte subsets, platelet counts, immune globulin levels and antibody to HIV (Elisa, WB) were determined in 87 multitransfused asymptomatic haemophiliacs in 1982/83. Between 1982 and 1987 6 patients developed AIDS and 5 ARC (3 immune thrombocytopenia and 2 lymphadenopathy). AIDS or ARC developed in seropositive patients only (11/49). Patients who subsequently developed AIDS or ARC showed significantly lower numbers of T helper lymphocytes ($378/mm^3$ versus $605/mm^3$; p 0.01), lower platelet counts ($157x10^9/l$ versus $194x10^9/l$; p 0.05) and higher levels of IgG (2528 mg/dl versus 1992 mg/dl; p 0.01). AIDS or ARC occured in 4 of 7 patients (57.1%) with a low HIV antibody level (2000), but only in 7 of 42 (16.6%) with a high level of antibody to HIV (2000). A weak gag p 24 in WB was found in 4 of 11 patients (36.3%) who subsequently acquired AIDS or ARC , while none of the patients who remained asymptomatic displayed this reactivity pattern in WB. 9 patients showed a weak gag p 18 in WB. 8 of them (88.8%) have platelet counts below $120x10^9/l$, 3 developed immune thrombocytopenia with platelet counts of less than $50x10^9/l$. Only 6 of 40 patients (15%) without this reactivity pattern in WB have platelet counts lower than $120x10^9/l$ and none below $50x10^9/l$. We conclude that a weak gag p 24 in WB has a strong positive predictive power for the development of AIDS or ARC in seropositive haemophiliacs. A weak gag p 18 in WB could possibly be associated with the occurence of immune thrombocytopenia in these patients.

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HIV STATUS, T CELL SUBSETS, BLOOD PRODUCT USE, AND HEMATOLOGIC ABNORMALITIES IN CONGENITAL COAGULATION DISORDERS (CCD).

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Data are presented on 485 subjects with CCD treated with blood products at entry into a cooperative study of blood product safety; 376 subjects had hemophilia A, 86 had hemophilia B, and 23 had von Willebrand's disease (vWD). Anti-HIV was detected in a total of 323 (66.7%) subjects. Of those treated with pooled product 303/397 (76.4%) had anti-HIV; of these, 256/316 (81%) had hemo. A, 44/76 (57.9%) had hemo. B, and 3/5 (60%) had vWD. Of those treated with unpooled products 20/88 (22.7%) had anti-HIV; of these 17/60 (28.3%) had hemo. A; 0 of 10 had hemo. B, and 3/18 (16.6%) had vWD. The percent of T4 cells in all groups studied were significantly lower in anti-HIV (+) as compared to anti-HIV (-) patients (26% vs 42%) (p=0.0001). T4/T8 ratios demonstrated significant differences in all groups treated (p=0.001) when comparing anti-HIV (+) with anti-HIV (-). However, F VIII concentrate recipients who are anti-HIV (-) have significantly lower T4/T8 when compared to controls (p=0.0001) and single pooled F VIII deficient recipient patients (p=0.0264). Mean platelet counts, WBC, ALC, and Hgb were all significantly lower in anti-HIV (+) subjects (p $<$ .001,=.0002,=.002, and =.02). A significantly higher % of anti-HIV (+) subjects had abnormally low WBC, ALC and platelet counts (table). In summary, anti-HIV (+) and lower T4/T8 ratios were related to type of blood product used, being seen significantly less frequently in patients receiving only unpooled product. Thrombopenia, leucopenia, and lymphopenia were seen more frequently in anti-HIV (+) patients.

Status	WBC		ALC		Plts	
	$<$4500	$>$4500	$<$1000	$>$1000	$<$150k	$>$150k
Anti-HIV (-)	13 (9%)	133 (91%)	5 (3%)	140 (97%)	9 (6%)	136 (94%)
Anti-HIV (+)	107 (37%)	186 (63%)	46 (16%)	246 (84%)	52 (18%)	240 (82%)
p value	p = $<$0.0001		p = $<$0.0001		p=0.001	

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PROGRESSION OF HIV INFECTION IN THE POPULATION OF FRENCH HEMOPHILIACS.

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A national inquiry including 28 hemophilia centers was carried out in France in order to appreciate the epidemiology of HIV infection among hemophilic patients. Information about 1781 patients was obtained with an overall prevalence of 50% seropositive patients. This percentage of HIV seropositivity was unchanged in comparison with 1985 confirming that no seroconversion was observed since the use of heat treated products for bleeding episodes. It is to be noted that there is an important progression in the number of AIDS which increased from 16 hemophiliacs last year to 23 this year with a total of 11 deaths against 7 last year related to this affection. In the remaining hemophilic population, twenty per cent of HIV positive patients have developed an ARC. For the biological abnormalities related to immune deficiency, it was found that patients with lymphopenia less than 1000 lymphocytes had not progressed and represent 23 patients. Patients with thrombocytopenia less than 150,000 platelets had increased from 29 to 62. Patients with a number of T4 lymphocytes subset less than 400 had increased from 54 to 110. 22% of HIV positive hemophiliacs had a T4/T8 ratio less than 1 in 1986 in comparison with 11% in 1985. 17.5% of HIV positive population showed an elevated level of gamma-globulins above 20 g/liter of plasma against 12.5% last year. The conclusion of the present study is that HIV infection has progressed in severity from 1985 to 1986 in the population of multitransfused HIV positive French hemophiliacs.