

HIV & AIDS

HIV	Infect & Destroy T-helper cells(CD4) resulting in the loss of cell mediated immunity		
Characteristics	Two copies of ss-RNA . & 3 important enzymes		
Enzymes	1- Reverse transcriptase: converts viral RNA into DNA.	2- Integrase: integrates viral DNA with host DNA (provirus), persisting infection.	3- Protease: viral protein maturation.
Transmission	Sexually (main) , Parenterally & From mother to child		
Treatment	does not clear the virus & no vaccine		
Course	acute phase	Chronic phase	AIDS
Duration	12 weeks.	10 years in adults,5 years in children	end stage of the disease.
Symptoms	Mostly asymptomatic , infectious mononucleosis or Flu like syndrome	at the end of this stage patients start to develop	
		PGL	ARC
		In chronic Totally asymptomatic but in <ul style="list-style-type: none"> - PGL > multiple enlargement of lymph nodes - ARC > Weight loss(Slim disease) 	<ul style="list-style-type: none"> - multiple opportunistic infections - Kaposi sarcoma
Blood markers	<ul style="list-style-type: none"> - high viral load RNA - Normal to slightly decrease in no. of CD4 . 	<ul style="list-style-type: none"> - In chronic : Low viral load & CD4 count > 500/ml. - In PGL & ARC : High load of Viral RNA & CD4 count decreased but still more than (200 cells /mm3) 	<ul style="list-style-type: none"> - high viral load - CD4 cell count < 200
Diagnosed by	PCR	ELISA, Western Blot.	
PCR	Used in : Acute HIV infection, HIV in infant of infected mother, monitoring treatment and as confirmatory test.		