Plasmingen activator (PA) < Thrombus formation and fibrinolysis > 参い Plasminogen -> > basmin HALSI -> Fibrin/ Fibringen *The main causes of thrombus formation deprodution in isdremic stroke: Athernsclerosis (到起语) products (FDP) Cardio em bolic (87545) Ottial Fibrillation -> atheroscleratic plaque rupture/ Cardio -embolic thrombosis S coagulation cascade>+ platelet notivation activated Figure 2. The coagulation process. The intrinsic pathway involves activation of components from within the vasculature (activation of Factor IX by Factor IXa). The extrinsic pathway is the principal initiating pathway for in vivo blood coagulation. The pathway involves the exposure of Tissue Factor (TF), a glycoprotein, and phospholipids to blood, these components are from the surface membranes of fibroblasts that are within and around blood vessels. TF and phospholipids, when exposed to blood, interact with Factor VIIa to convert Factor IX to Factor IXa (from the intrinsic system). Factori VIIIa is then formed from interactions between Factor IX and phospholipids. Factor VIIIa and Factor X then combine to form Factor Xa. Factor Xa then interacts with phospholipids to form Factor Va and a "prothombinase". This is the stage where the intrinsic and extrinsic pathways converge and form the common pathway. Prothombinase the uses feedback mechanism for Factor VIIIa and Fac tor XIa as a check to ensure that coagulation is still required, and if so, forms a thrombin. Thrombolytic drugs have action of factor XIII to break the fibrin crosslinks. < Thrombolytic drugs> : plasminogen > plasmin >> dissolve - Arrombi * Tissue Plasminagen activator CEPA): serine protease lusine binding of +PA -> pactivation of plasminogen around a thrombus activation of circulating plasmingen to Plasminogen -> plasmin -> thrombus -> Abrin degradation products (the inhibitory effect of alpha 2-antiplasmin & type I plasmingen activator inhibitor restricts)

	Agent	Half-life (min	Fibrin selectivity	PAI-1 inhibition		
	Urokinase	15	<u>-</u>	+++		
	Alteplase	4-8	++	+++	1. DA	
	Staphylokinase	6		-	LPA drugs	
	Monteplase	23	+/-	+++		
	Pamiteplase	30-47	++	+++		
	Lanoteplase	23-37	+	-		
	Reteplase	14-18	+	++		
	Tenecteplase	11-20	+++	-		
	Desmoteplase	138	+++++	?		
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Desmoteplase: extracted from the saliva of vampire hots more selective for fibrin, no known effect on BBB half life 4 hours (Alteplase 5 min, Reteplase 13 min, Tenedeplase 17 min)
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