



SMART PHARMACOLOGY

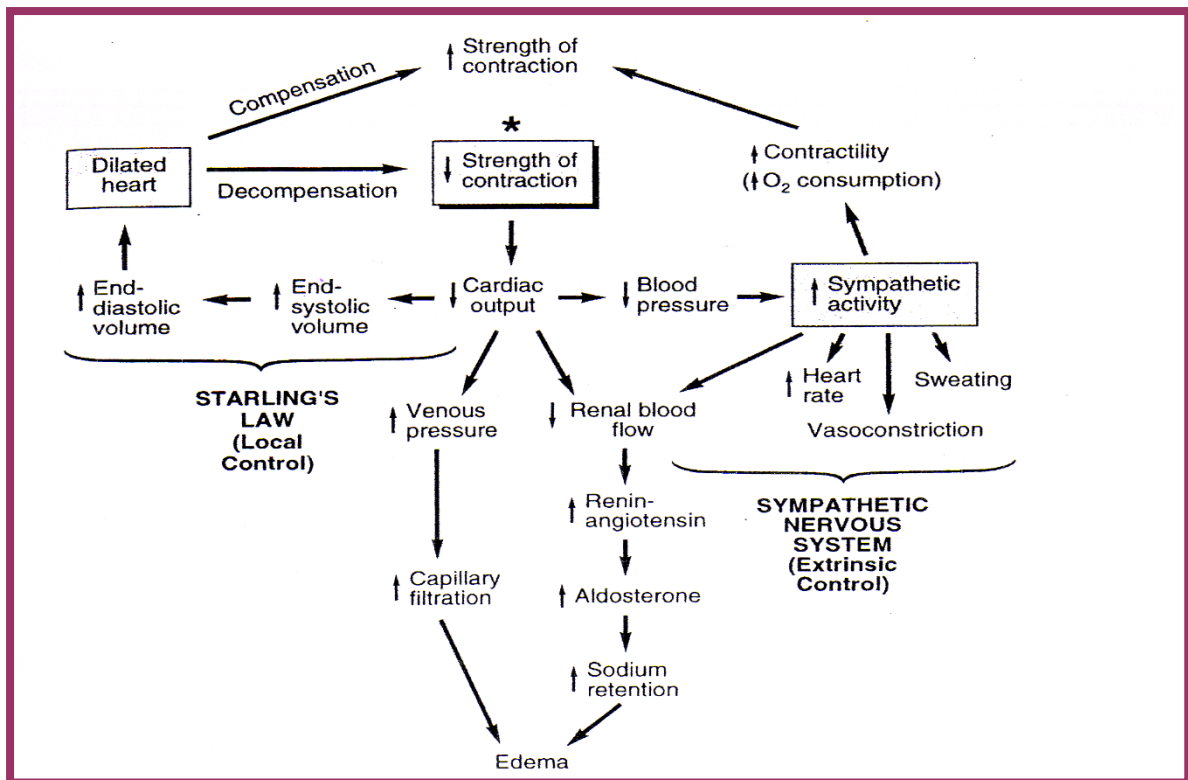
LESSON 3 SPRING

Task 1

Give a definition of the concept of “cardiotonics”. What is the difference between cardiotonics and cardiostimulative drugs? Give examples of both groups.

Task 2

Please describe the following picture. What is the meaning of it in case of cardiotonics use?



Task 3

Please continue the definition. Please fill in the table.

Cardiac glycosides are the medicines which

Types of drugs containing cardiac glycosides

<i>Drugs, containing Digitalis glycosides</i>	<i>Drugs, containing Strophanthus glycosides</i>	<i>Drugs, containing glycosides of Convallaria, Adonis*, Scilla maritima**, combined agents***</i>



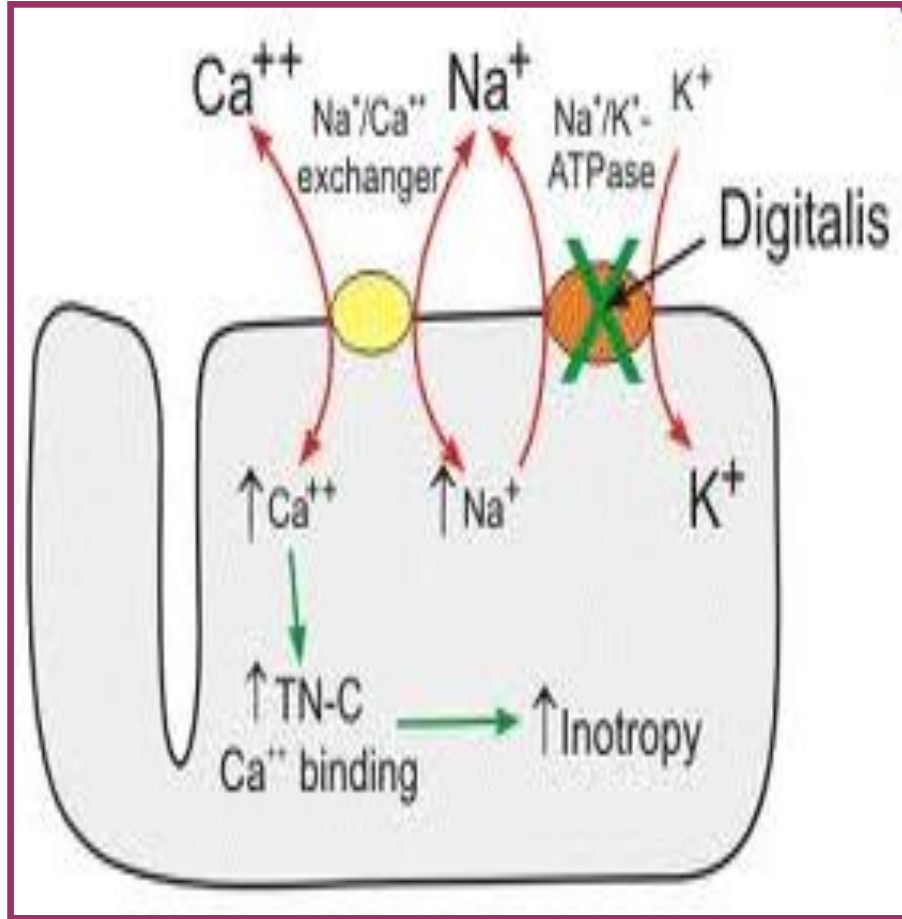
Task 4

What is the difference between the sources of the cardiac glycosides?

Pharmacological effects of CG
1. the sources of cardiac glycosides with slow and prolonged action
2. the sources of cardiac glycosides with rapid and short action

Task 5

Describe the mechanism of action of CG



Task 6

Discuss the PD of CGs. Name each activity?

Pharmacological effect	description
1. Positive inotropic activity	
2.	
3.	
4.	
5.	

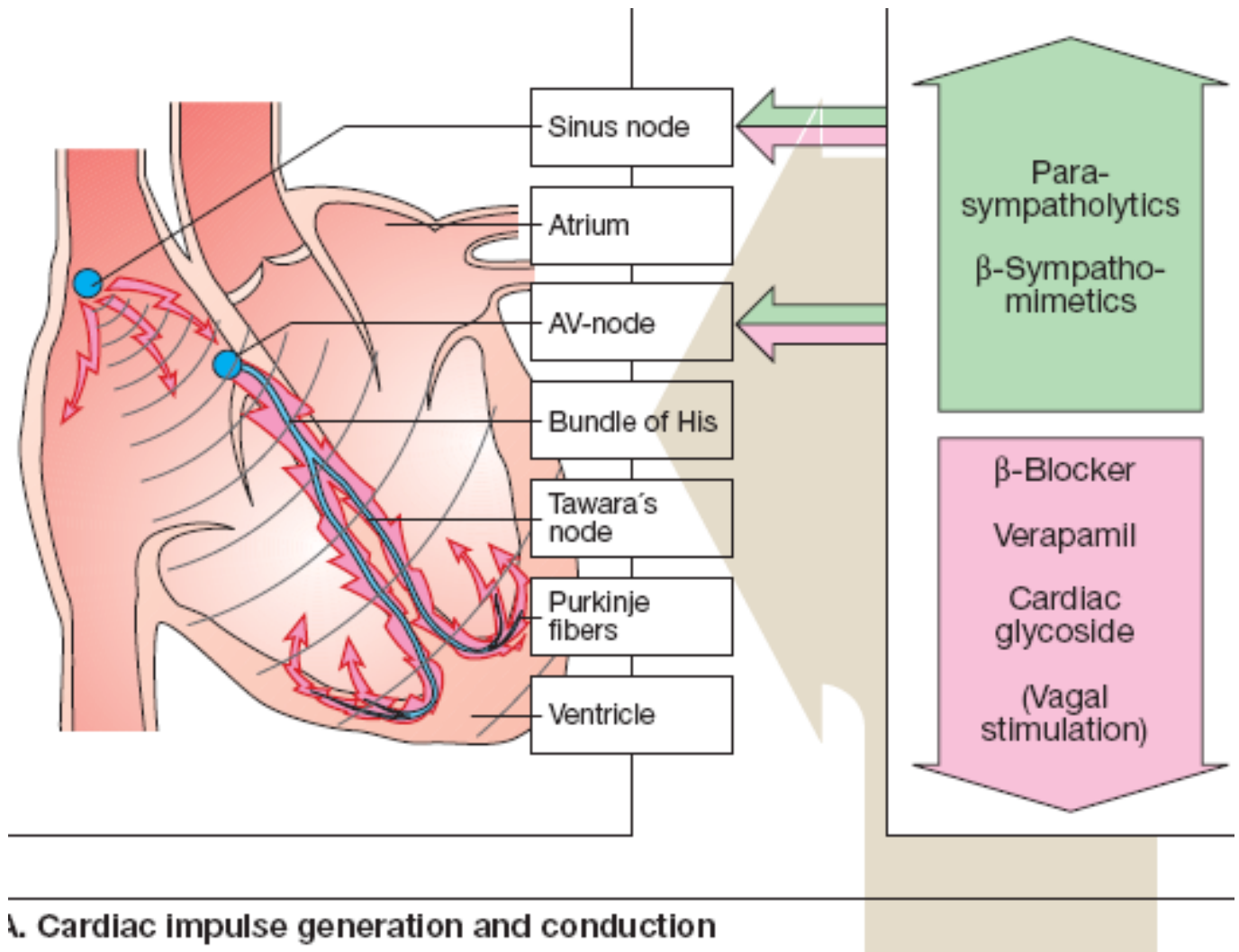
Task 7

Please complete the table?

<i>Medicines</i>	<i>Route of administration</i>				<i>Accumulation</i>	<i>Absorption in the GIT</i>
	<i>intravenously</i>		<i>perorally</i>			
	<i>Start (min)</i>	<i>Duration (days)</i>	<i>Start (hours)</i>	<i>Duration (days)</i>		
<i>Digoxin</i>						
<i>Digitoxin</i>						
<i>Lantoside</i>						
<i>Strophanthine G</i>						
<i>Corglycon</i>						
<i>Adoniside</i>			<i>15-40</i>	<i>3-4</i>		<i>+</i>

Task 8

Please describe the drugs with anti-arrhythmic activity



Task 9

Complete the table

<i>Medicines</i>	<i>Blocker of</i>			<i>Other effects</i>
	<i>Ion canals</i>		<i>β₁-adreno-receptors</i>	
	<i>Na⁺</i>	<i>Ca²⁺/K⁺</i>		
<i>Quinidine</i>	+++	-/++		
<i>Procainamide</i>	+++	-/++		
<i>Lidocaine</i>	+			
<i>Propranolol</i>	+		+++	
<i>Metoprolol</i>	+		+++	
<i>Verapamil</i>	+	+++/-		
<i>Potassium and magnesium asparaginate</i>	<i>The source of K⁺, Mg²⁺</i>			

