

XV. Diseases of the Cardiovascular System

Endocarditis, Bacterial (acute) - Mitral		I-411 153	
Heart:	<ul style="list-style-type: none"> • About normal in size 		
Myocardium:	<ul style="list-style-type: none"> • Pale • Soft 		
Mitral valve:	<ul style="list-style-type: none"> • Cusps show: <ul style="list-style-type: none"> • Ulceration • Vegetations 		
Vegetations:	<ul style="list-style-type: none"> • Large • Opaque • Yellowish-reddish-grey • Friable • Destructive to the cusps • Spreading throughout the cusps • Somewhat extending to: Chorda tendinae 		
Other valves:	<ul style="list-style-type: none"> • Show no particular change • Are thin • Delicate 		
<p>N.B.:</p> <ul style="list-style-type: none"> • There is no cardiac enlargement or hypertrophy because in this case the patient did not live long enough to allow for the mechanical effects to show themselves. • The lesion most probably occurred on a previously-healthy valve. • Acute bacterial endocarditis is often a complication to an already serious disease such as <ul style="list-style-type: none"> ○ Acute osteomyelitis, ○ Carbuncle or ○ Puerperal sepsis. • That is, the primary focus of infection is usually obvious. 			

Infective Endocarditis

Major criteria:

- 2 Positive blood culture for IE
- Positive Echocardiogram for IE
- New valvular regurgitation

Minor criteria:

- 1) Predisposing heart condition or injection drug use
- 2) Fever
- 3) Vascular phenomenon

Microbial infection of the endocardial surface of the heart

39°C

4) Immunologic phenomenon

- Major arterial emboli
- Mycotic aneurysm
- Septic pulmonary infarct
- Glomerulonephritis
- Osler nodes
- Roth spots
- Rheumatoid factor

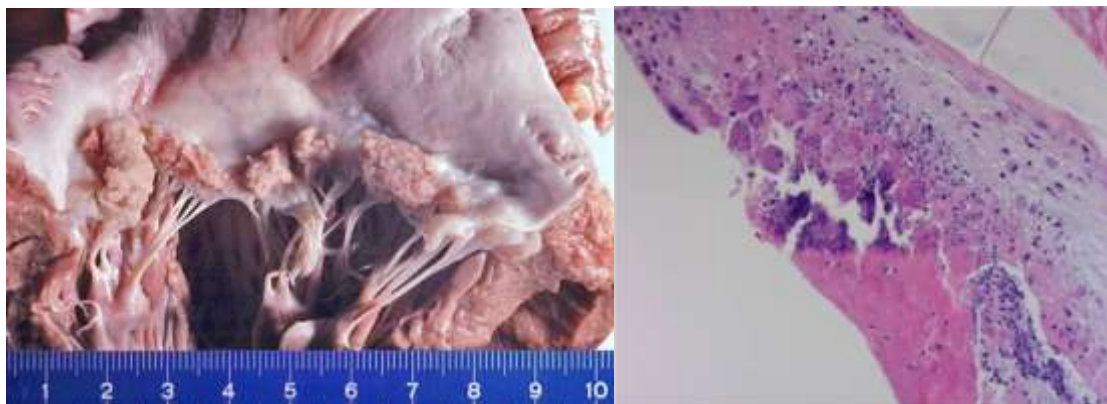
5) Microbiological evidence

Positive blood culture but not meeting major criterion

Modified Duke Criteria for Dignosis:

2 Major or 1 Major + 3 Minor or 5 Minor

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Large friable vegetations

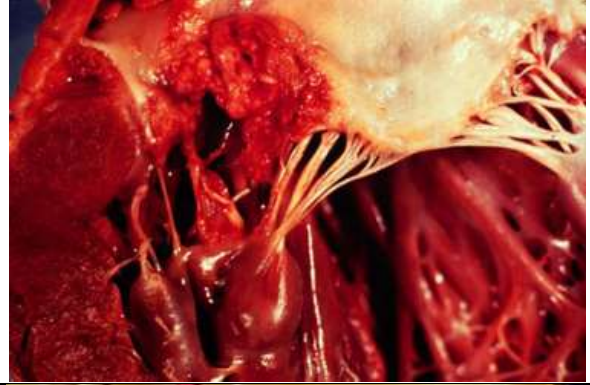
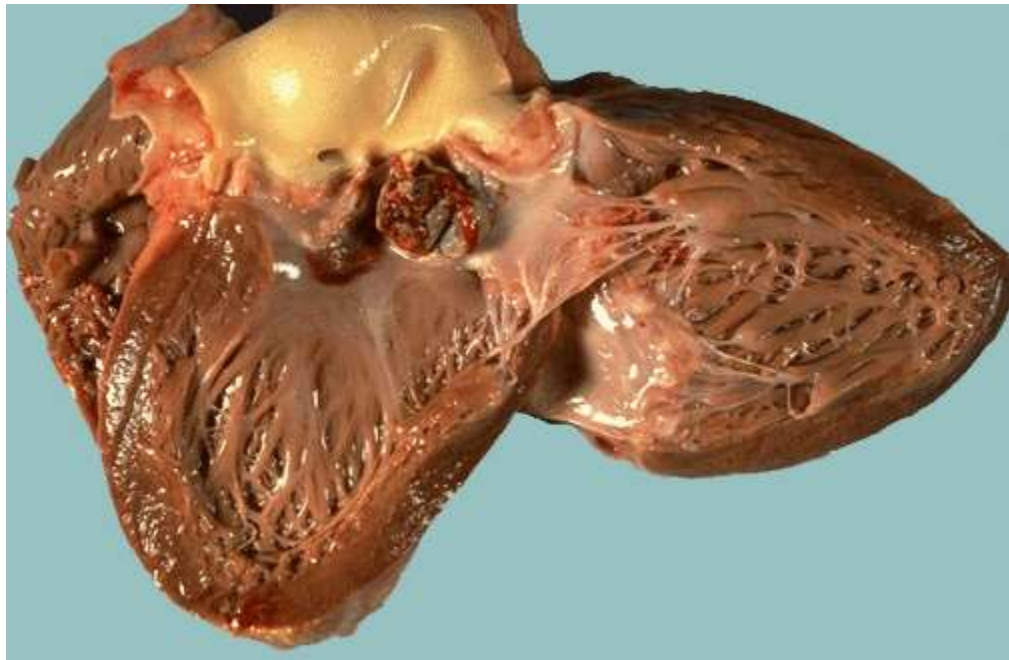
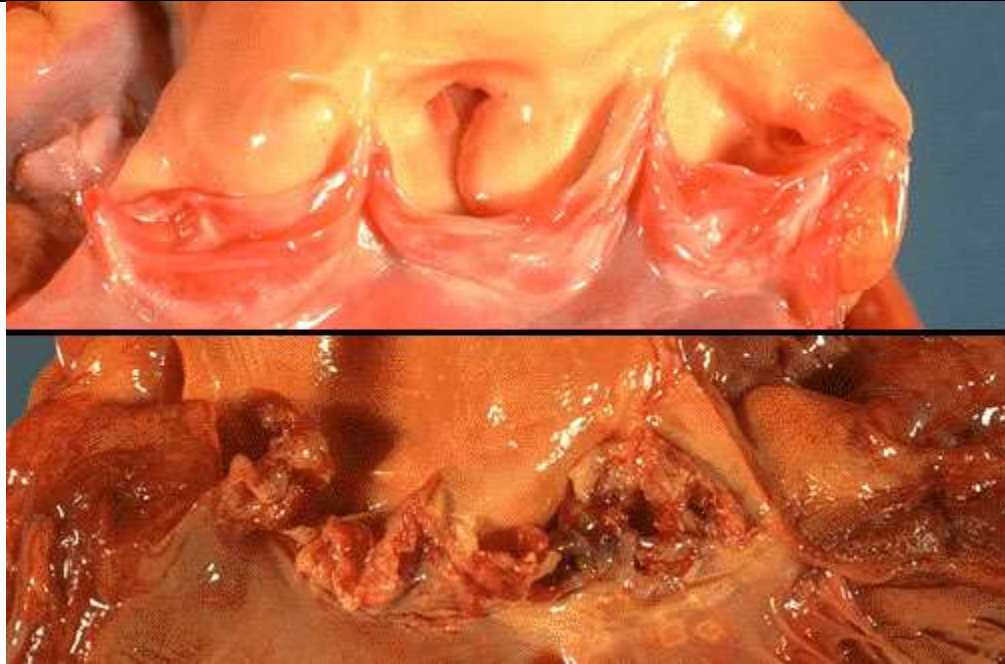


Figure 54
Nature
Acute Bacterial Endocarditis
Specimen No. 1-4.411513
Reference P. 135

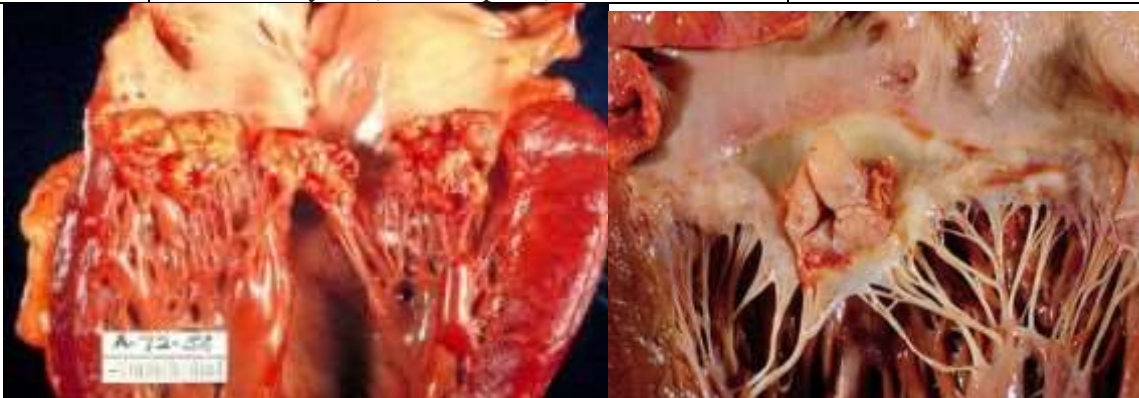
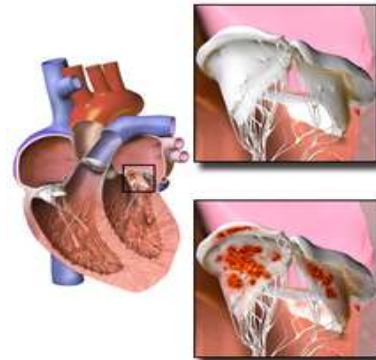
Destruction of the valve

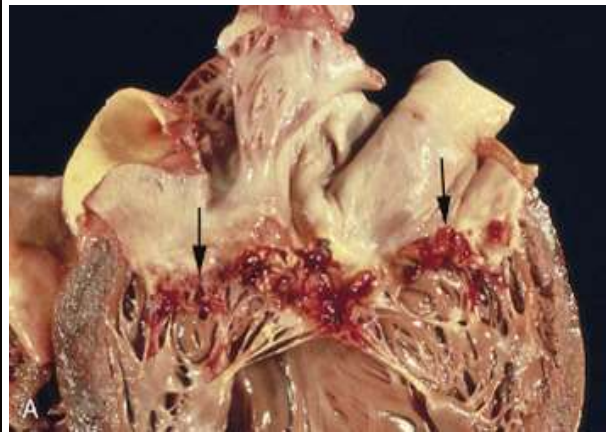
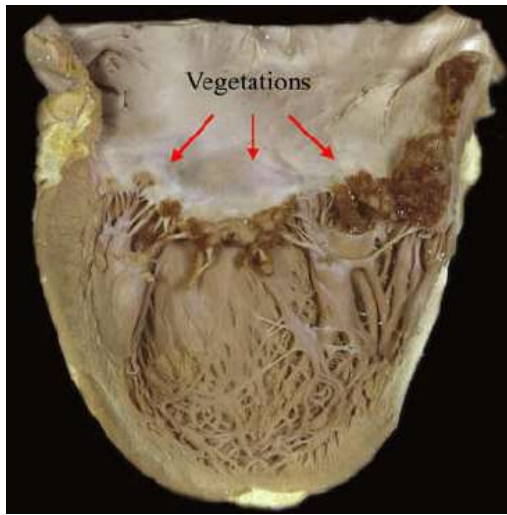


Endocarditis, Bacterial (acute) – Aortic I-4.411514



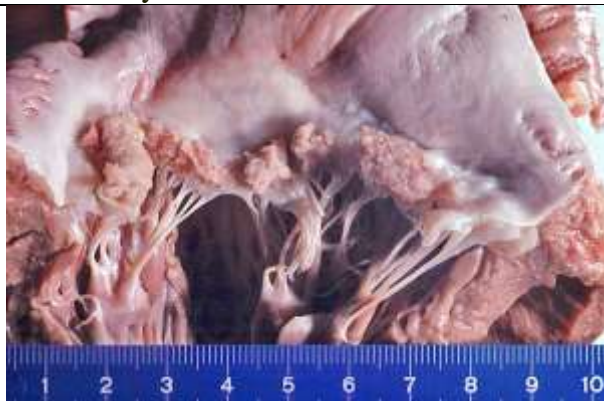
Heart:	Slightly enlarged		
Aortic valve:	Cusps:	Thin Delicate	
		Show :	Ulceration Vegetations
Vegetations:	<ul style="list-style-type: none"> • On the right posterior cusp • Large • Pale • Friable • Haemorrhagic (in some parts) • Greyish (in most parts) 		





N.B.:

- There is no actual cardiac hypertrophy.
- The condition has to be differentiated from other types of endocarditis (rheumatic, syphilitic or senile).
- Because the **vegetations are large, exuberant, destructive and friable**, they may lead to **embolic lesions producing multiple abscesses** in various organs, that is, acute pyaemia may result.



Splinter hemorrhages



Janeway lesions

(painless spots on palms/soles of feet)



Osler's Nodes

(painful nodules in pulp of fingers/toes)

