Brown atrophy of heart

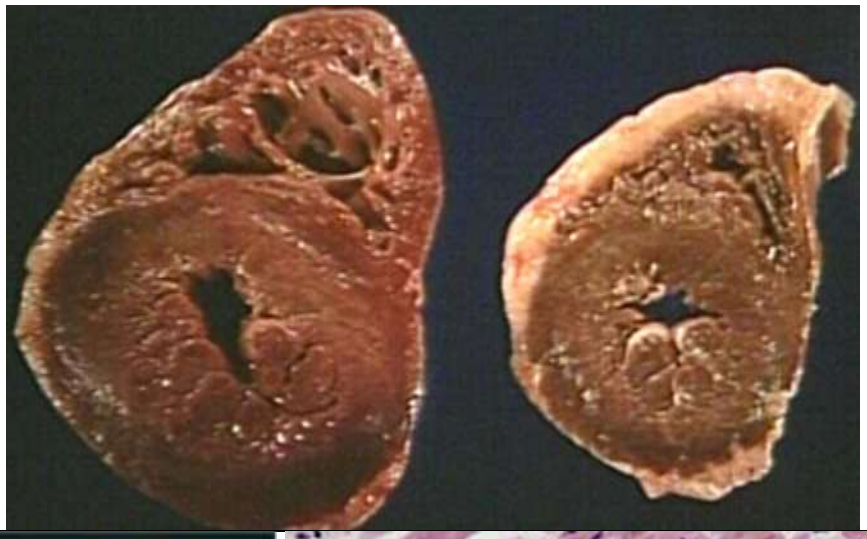
4. Brown Atrophy	**T-2.171**			
Size	• Is diminished			
Shape	• Preserved			
Colour	• Reddish-brown			
Subepicardial fat:	• Scanty • Pale • Replaced by a **gelatinous tissue**			
Myocardium	• Deep brown			
Coronary blood vessels	• **Prominent** • Tortuous			
Aorta & pulmonary vessels	Appear large **compared with the relatively-small heart**			

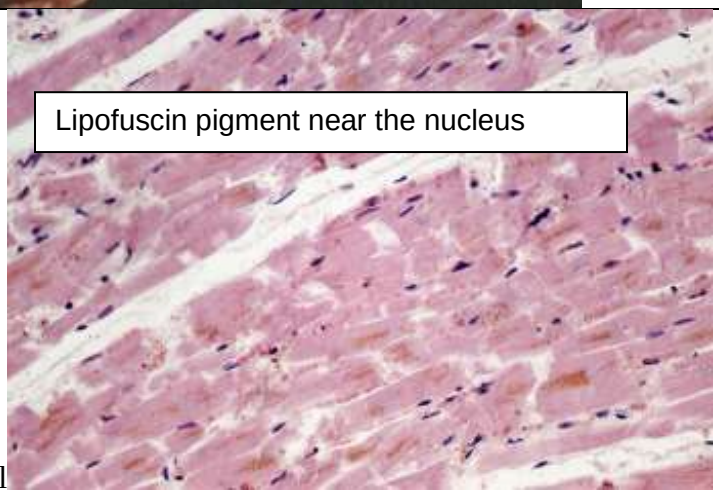
N.B. :

- The **weight** of the heart was found much reduced.
- The patient was an **old man.**
- He was markedly wasted and had suffered for several years from **pulmonary tuberculosis**.

Some causes of brown atrophy are:

1. **Long-standing wasting diseases,**
2. **Diabetes mellitus and**
3. **Cancer.**





5. Atrophy (ischaemic or senile heart)		**I- 2.172**		
	Heart	• Is opened • Appears small in size		
	Pericardium	• Moderately thick • Somewhat opaque		
	Myocardium	• Atrophied, otherwise no gross change		
	Left ventricle	• Is opened • Shows a thin wall (less than 1 cm. thick)		
	Endocardium	• Mural endocardium is almost normal • Slightly wrinkled • Occasional small subendocardial opacities		
	Valves	• Occasional fibrous thickening of leaflets		
	Coronary arteries	• Somewhat tortuous • Slightly prominent • Occasional involvement with **arteriosclerosis**		

N.B.

- This heart was removed at autopsy from a patient **aged 50 years** dying from **shock**.
- A senile heart disease **(presbycardia)** implies **a small heart with no evidence of gross ischaemic damage.**
- Usually, however, **both ischaemia and senile changes (wear and tear)** are responsible.
- The heart is usually
    - **Diminished in size (than expected)**
    - **But it may be either normal in size (rare) or**
    - **Slightly enlarged (very rare) in complicated cases.**
- The more common pattern of a decrease in the size of the heart **is due to the slow progressive loss of myocardial substance.**
- The myocardium may appear normal macroscopically at least in less advanced cases.
- Occasionally, **subendocardial fibrosis producing patchy opacities and thickenings**.
- **Fibrous thickening of the valve leaflets** may be associated with the myocardial atrophy as well as with **some arteriosclerotic affection of the coronaries** (which is an inevitable concomitant).
- **In severe cases, the condition is followed by replacement fibrosis up to ischaemic scarring and calcification.**

Figure 39
Nature **Brown Atrophy**
Specimen No. 1-2.171
Reference P. 125

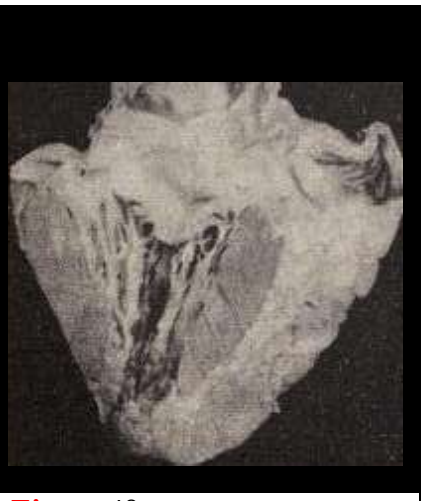


Figure 40
Nature **Ischaemic Atrophy**
Specimen No. 1-2.172
Reference P. 126