ECCMID 2017
CLINICAL GRAND ROUNDS

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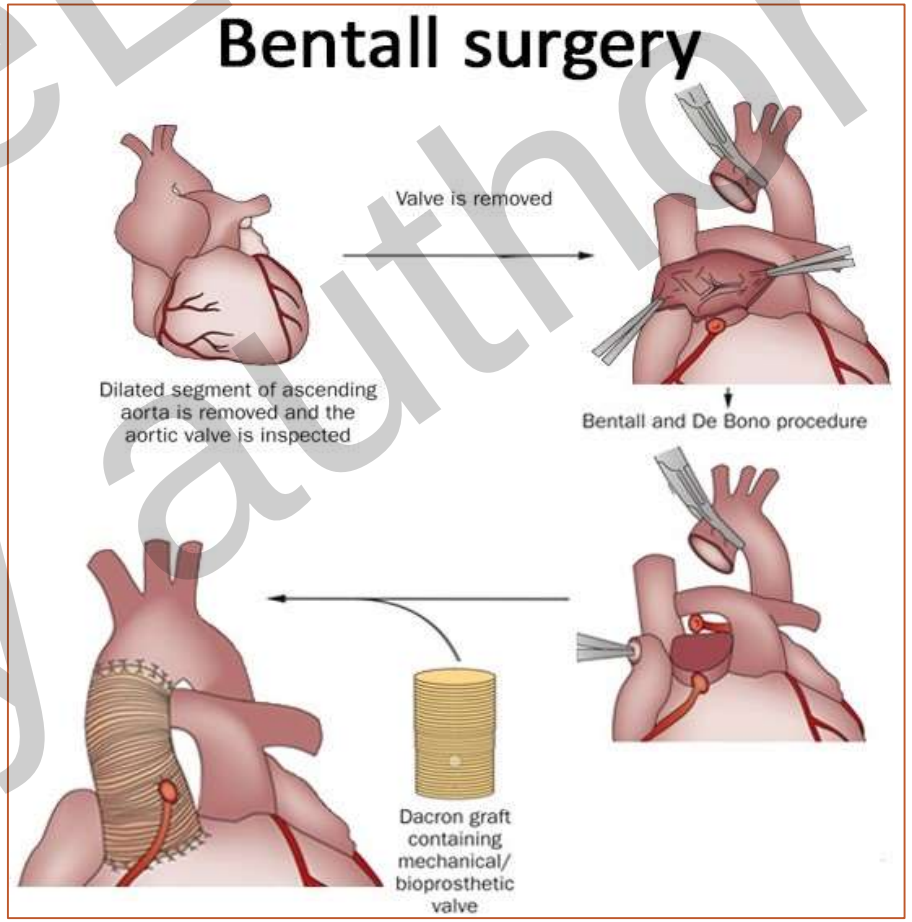
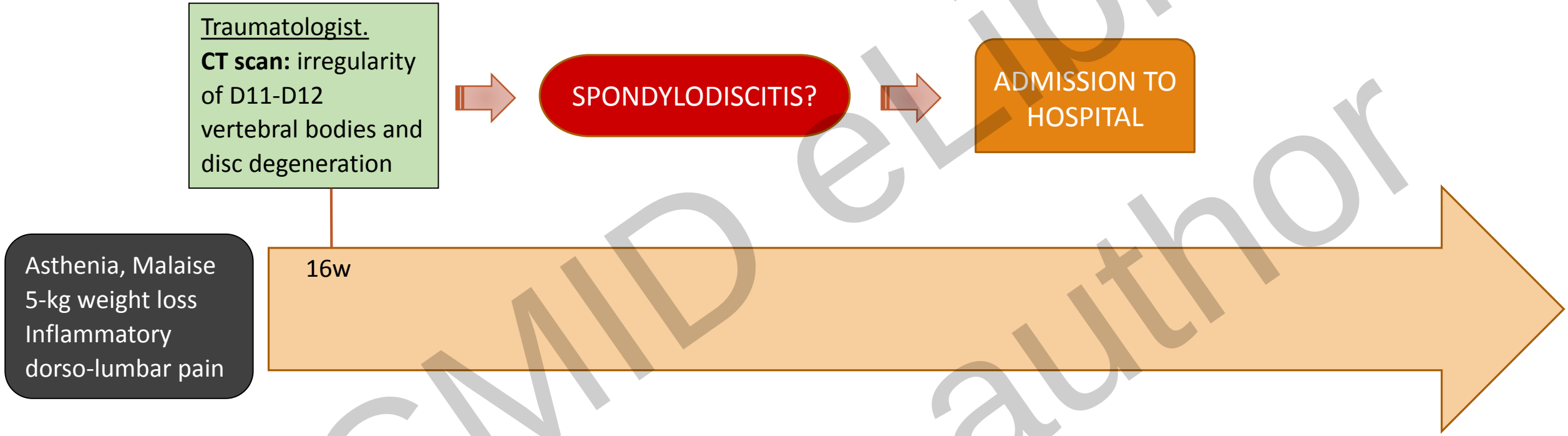
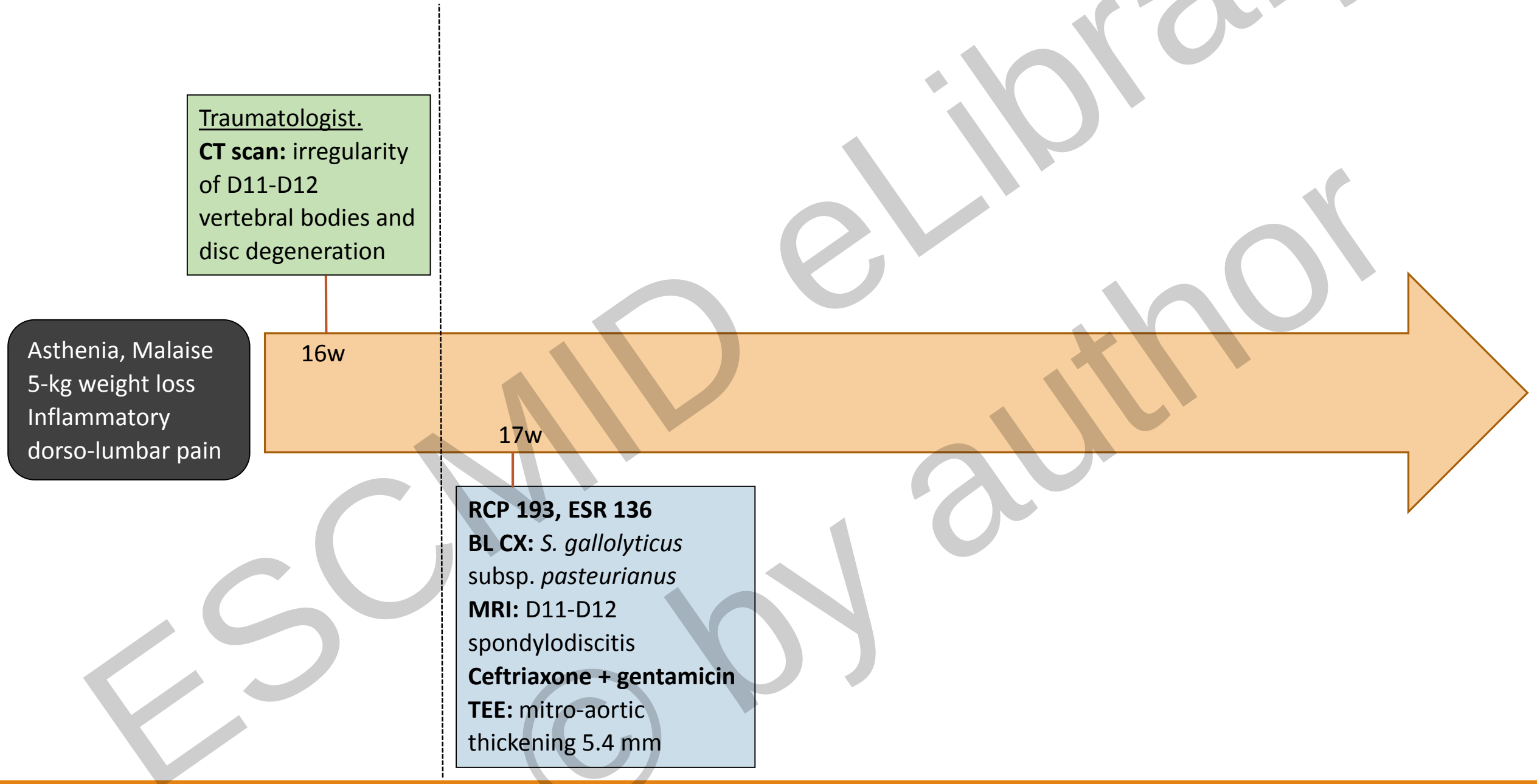
CASE DESCRIPTION

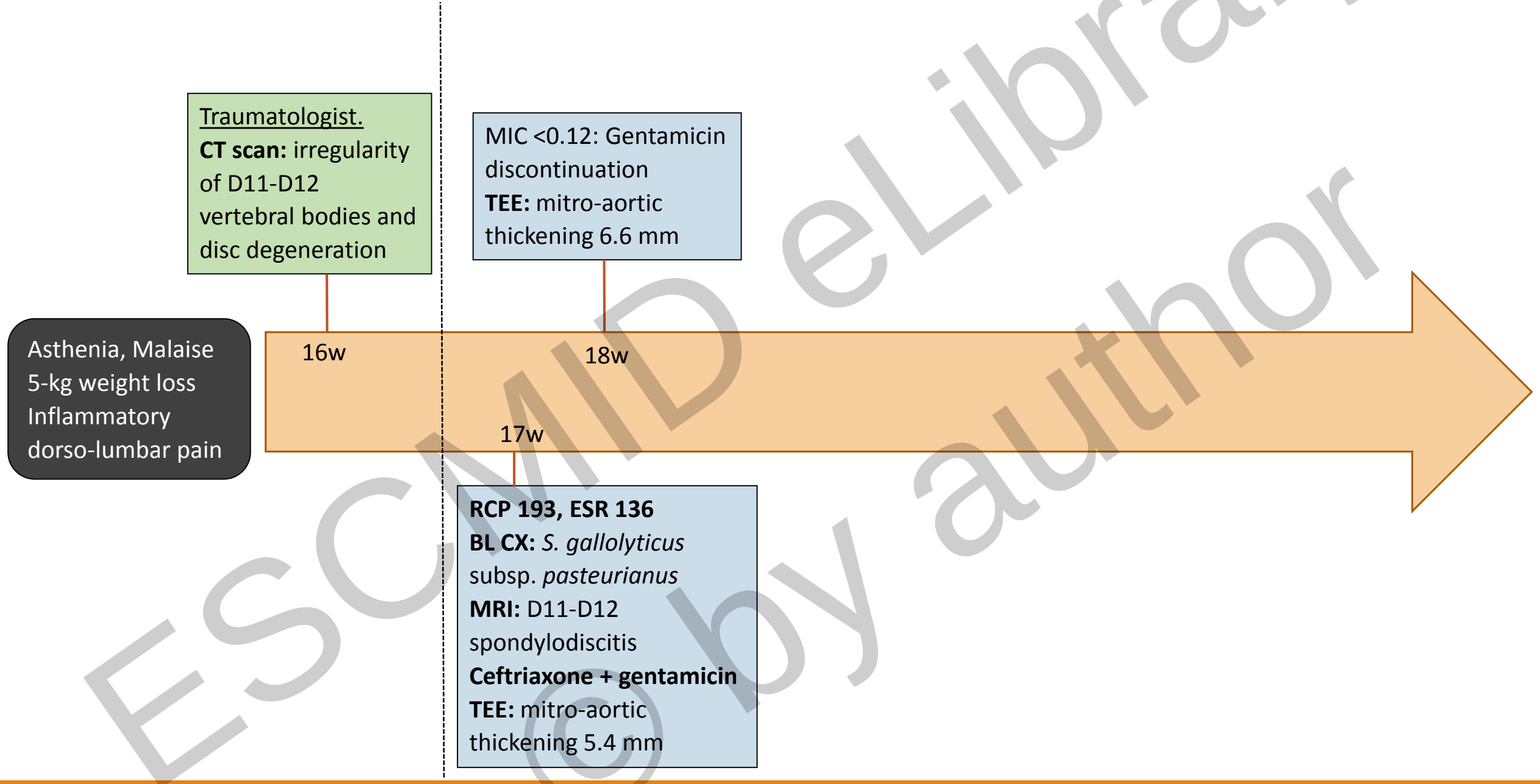
- 78-year-old man
- He had not smoked for 15 years and drank occasionally
- Hypertension, hyperlipidemia and atrial fibrillation
- Aortic-valve replacement and repair of an aortic aneurysm (Bentall-deBono procedure) 6 years before



Asthenia, Malaise
5-kg weight loss
Inflammatory dorso-lumbar pain

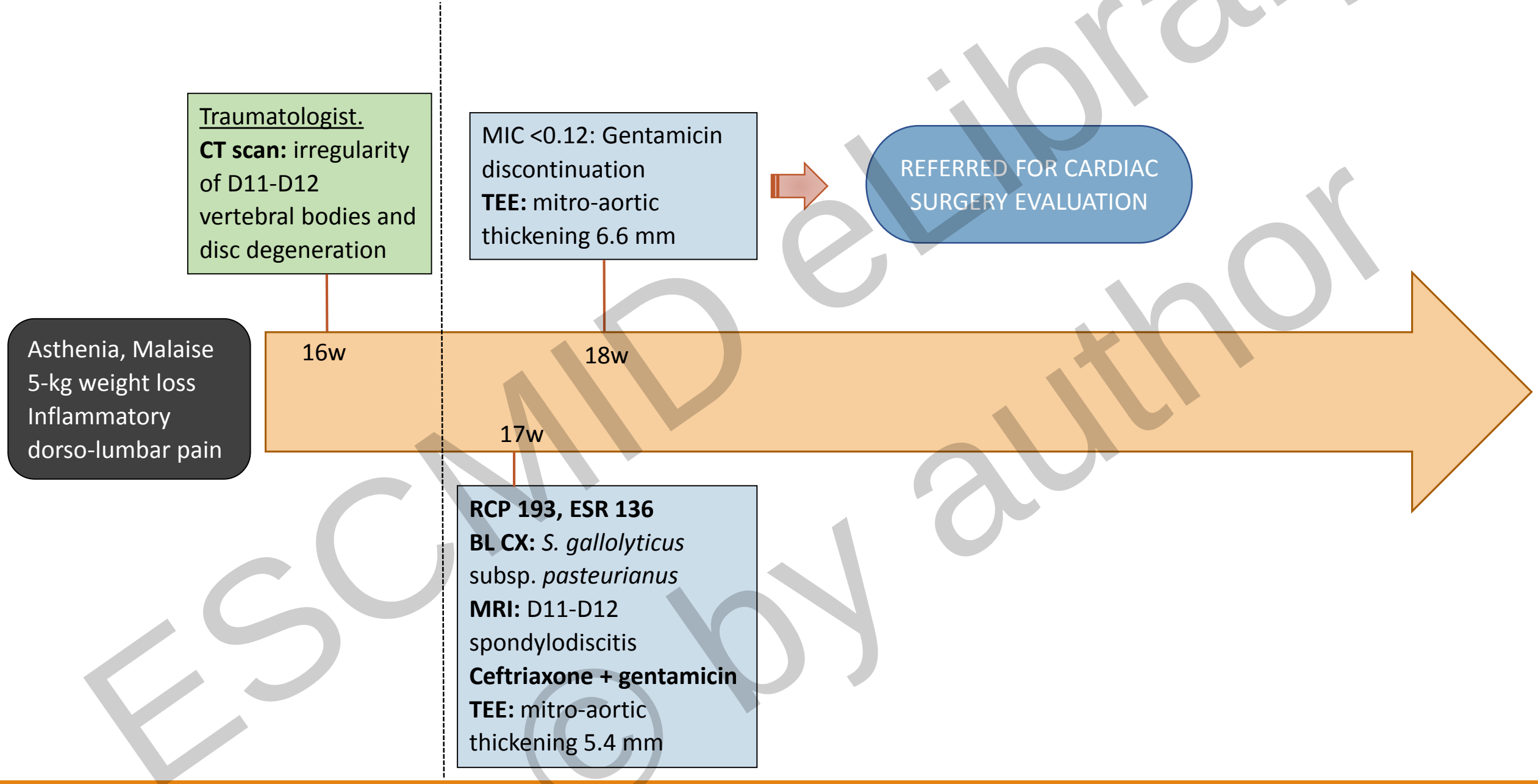


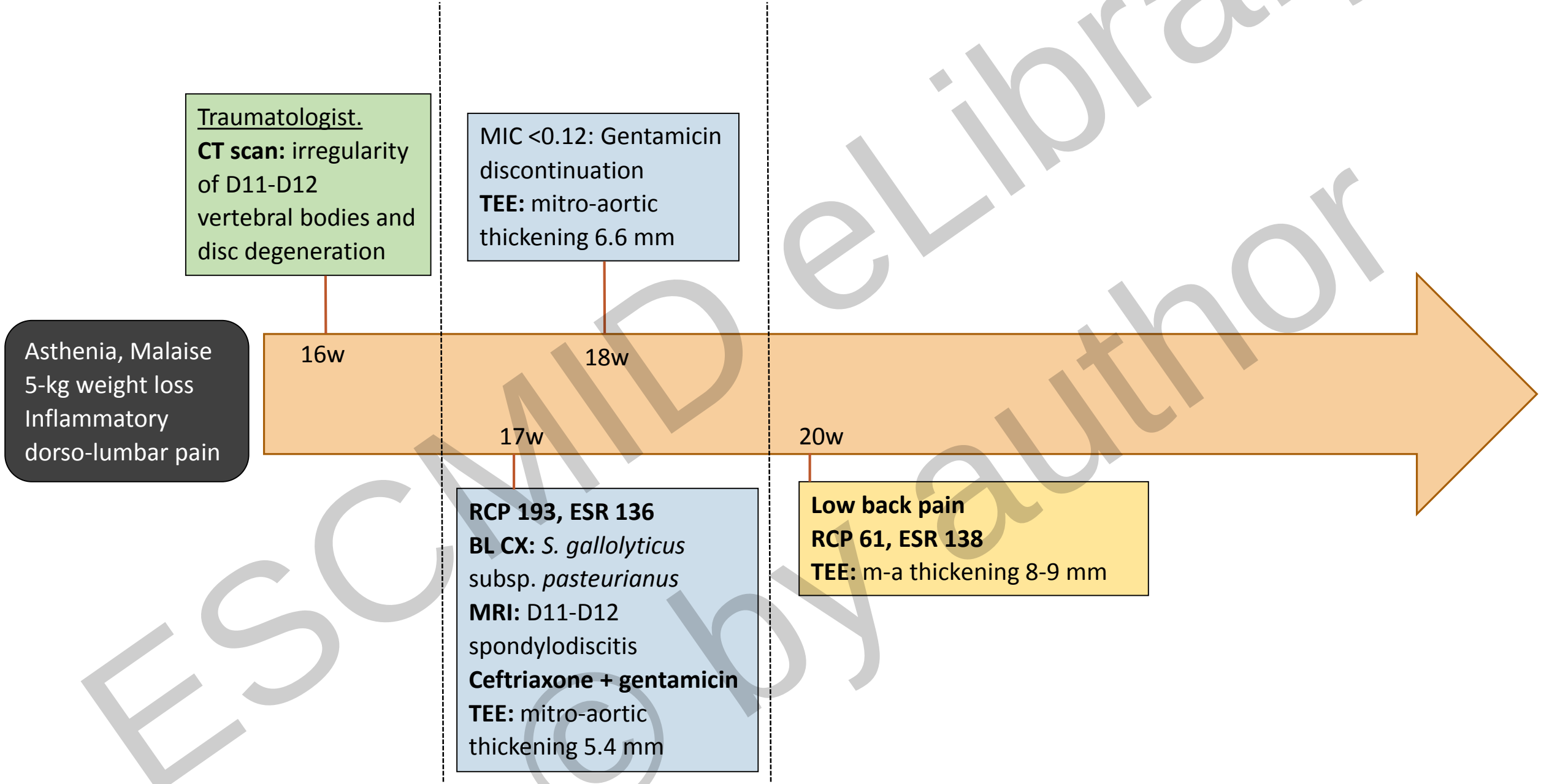


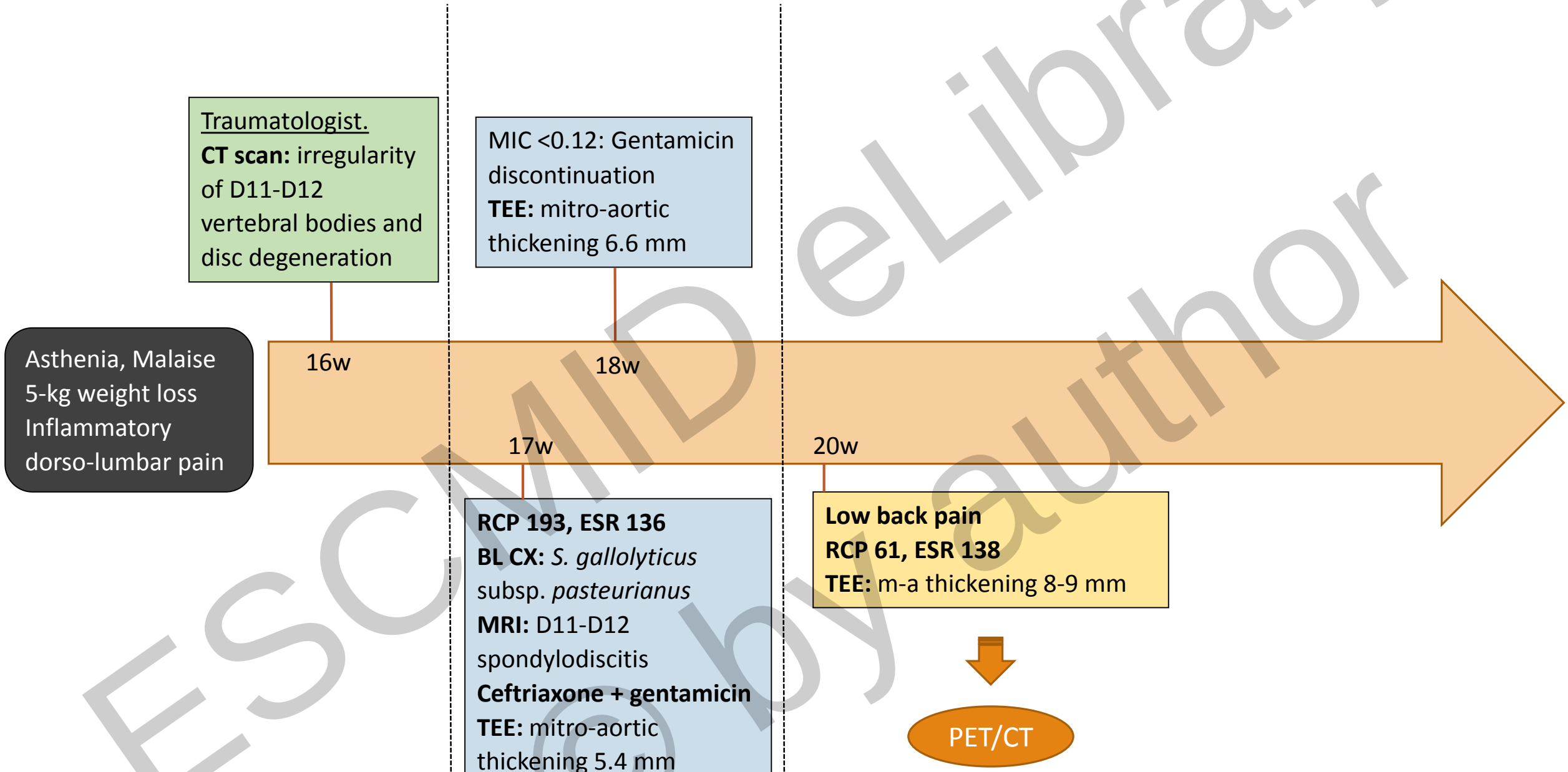


PANEL DISCUSSION

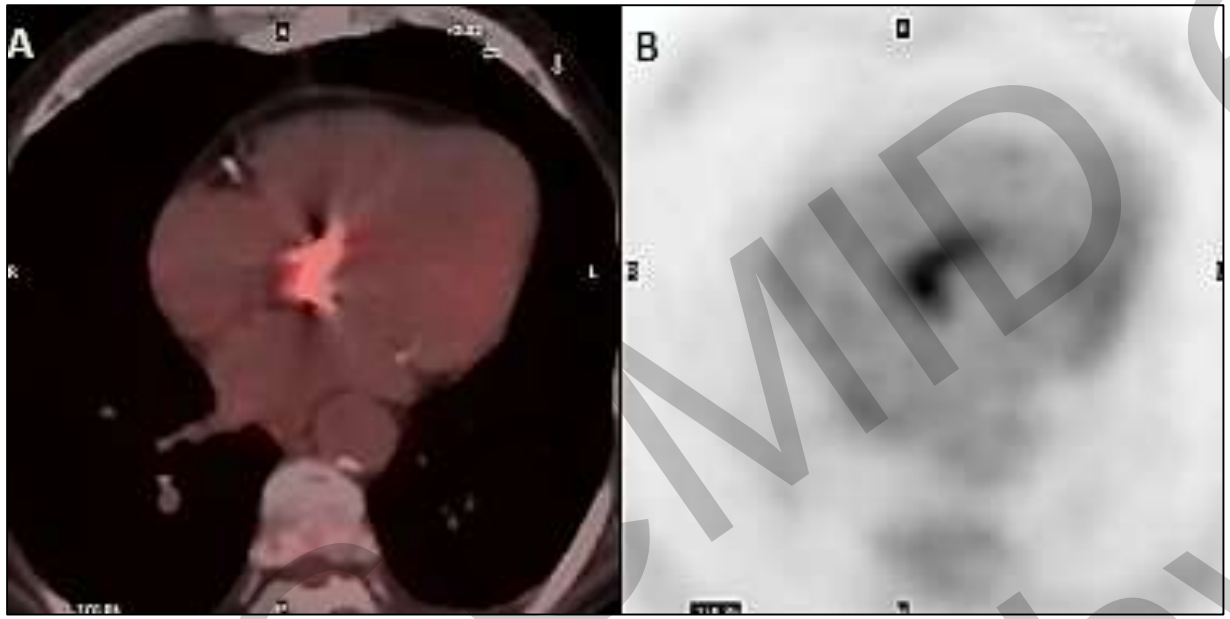
- What would you recommend at this point?
- Would you perform or repeat any imaging technique?
- Would you change the antibiotic or add a new one?

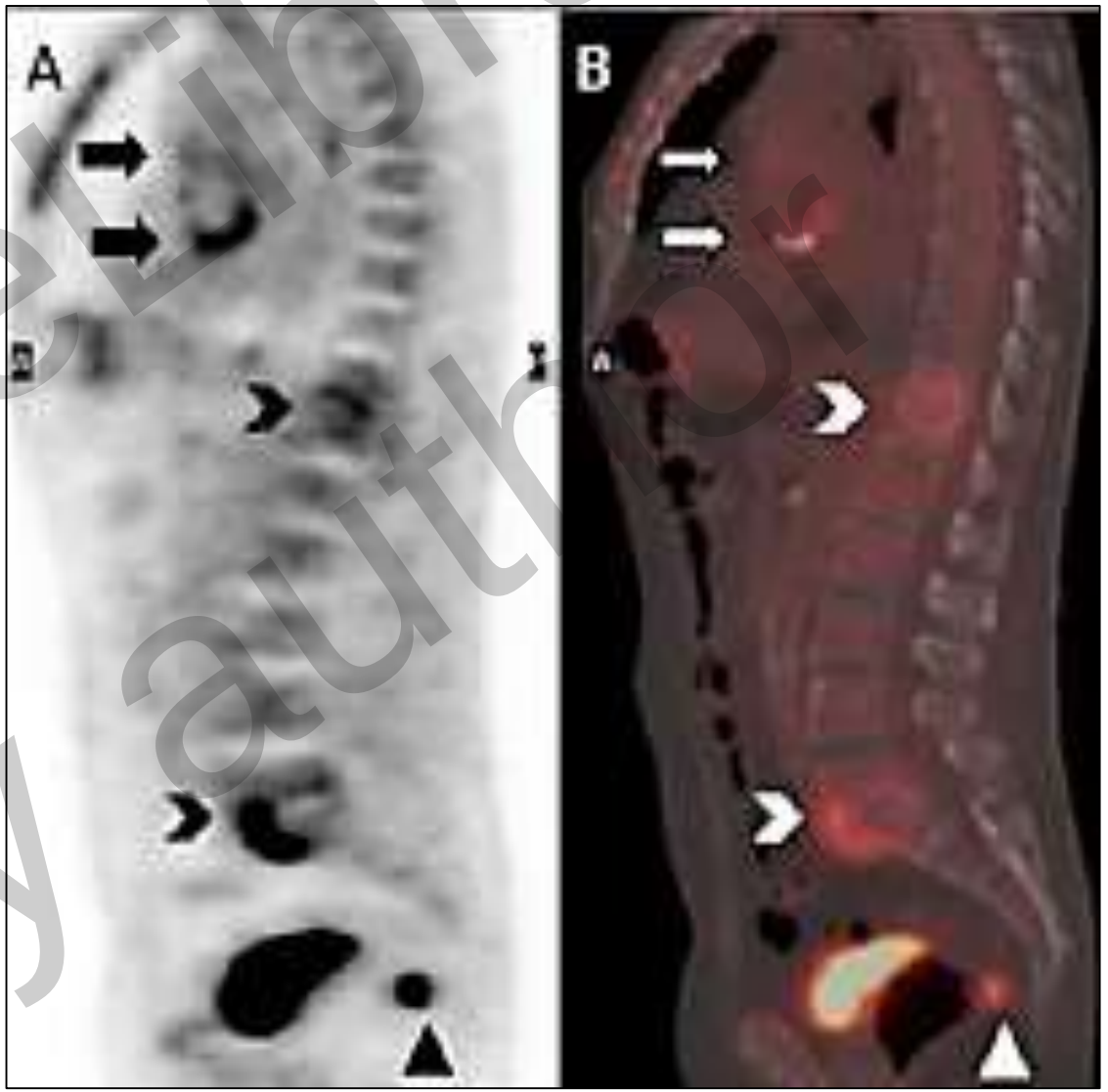


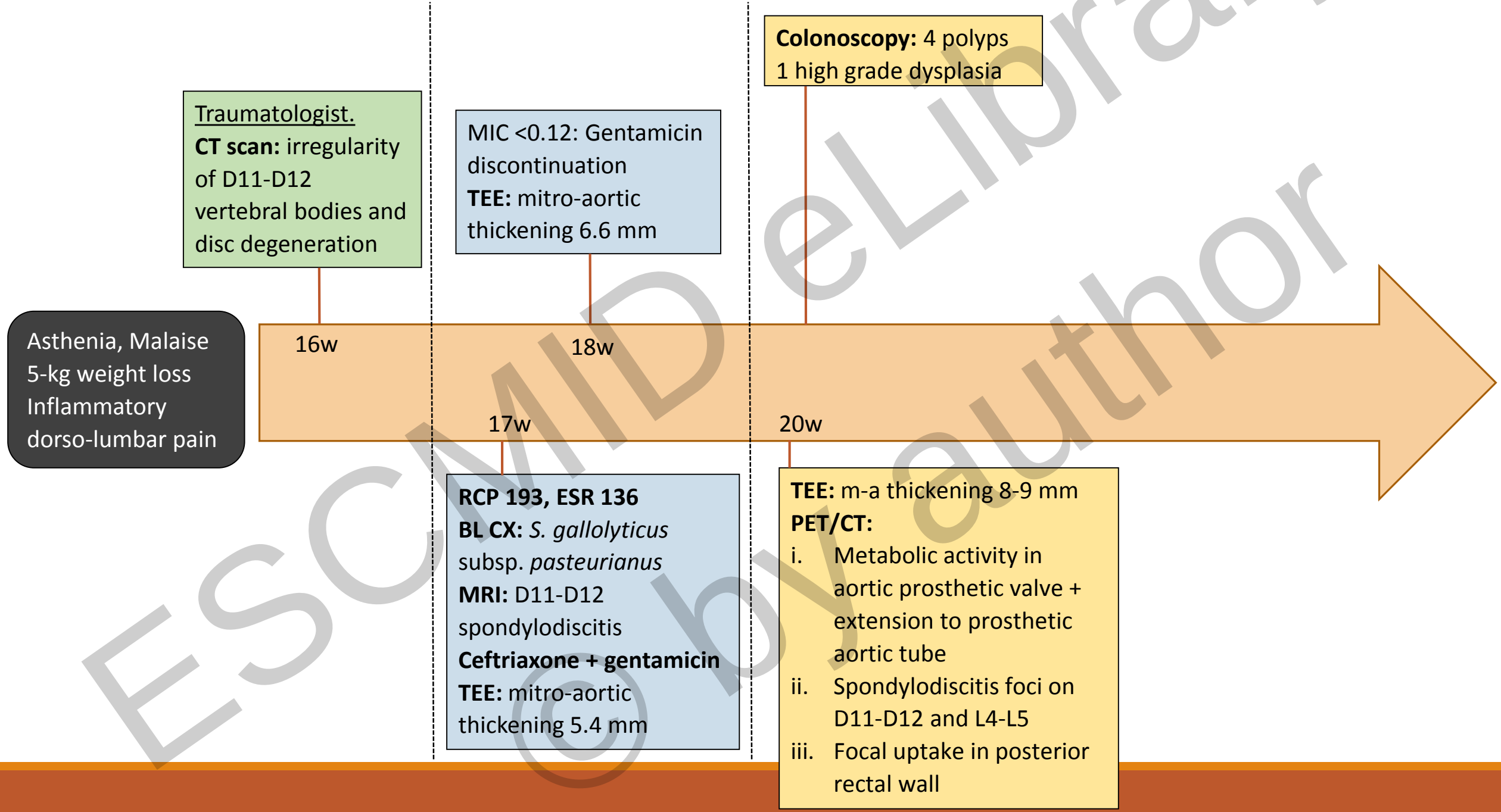




Axial and sagittal images on PET/CT.







PANEL DISCUSSION

Table 22 Indications and timing of surgery in left-sided valve infective endocarditis (native valve endocarditis and prosthetic valve endocarditis)

Indications for surgery	Timing[a]	Class[b]	Level[c]	Ref.[d]
1. Heart failure				
Aortic or mitral NVE or PVE with severe acute regurgitation, obstruction or fistula causing refractory pulmonary oedema or cardiogenic shock	Emergency	I	B	111,115, 213,216
Aortic or mitral NVE or PVE with severe regurgitation or obstruction causing symptoms of HF or echocardiographic signs of poor haemodynamic tolerance	Urgent	I	B	37,115, 209,216, 220,221
2. Uncontrolled infection				
Locally uncontrolled infection (abscess, false aneurysm, fistula, enlarging vegetation)	Urgent	I	B	37,209, 216
Infection caused by fungi or multiresistant organisms	Urgent/ elective	I	C	
Persisting positive blood cultures despite appropriate antibiotic therapy and adequate control of septic metastatic foci	Urgent	IIa	B	123
PVE caused by staphylococci or non-HACEK gram-negative bacteria	Urgent/ elective	IIa	C	
3. Prevention of embolism				
Aortic or mitral NVE or PVE with persistent vegetations >10 mm after one or more embolic episode despite appropriate antibiotic therapy	Urgent	I	B	9,58,72, 113,222
Aortic or mitral NVE with vegetations >10 mm, associated with severe valve stenosis or regurgitation, and low operative risk	Urgent	IIa	B	9
Aortic or mitral NVE or PVE with isolated very large vegetations (>30 mm)	Urgent	IIa	B	113
Aortic or mitral NVE or PVE with isolated large vegetations (>15 mm) and no other indication for surgery[e]	Urgent	IIb	C	

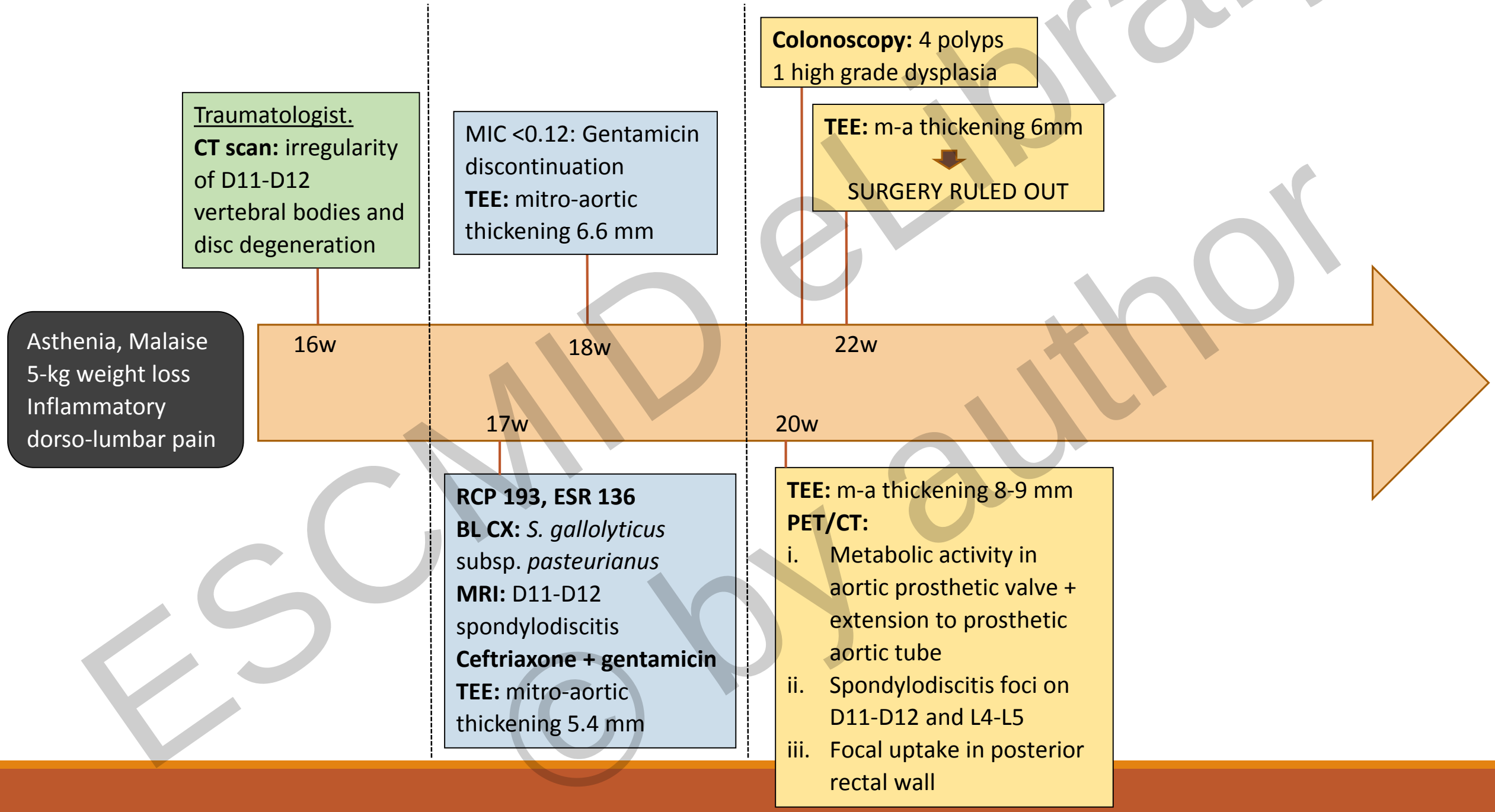
PA

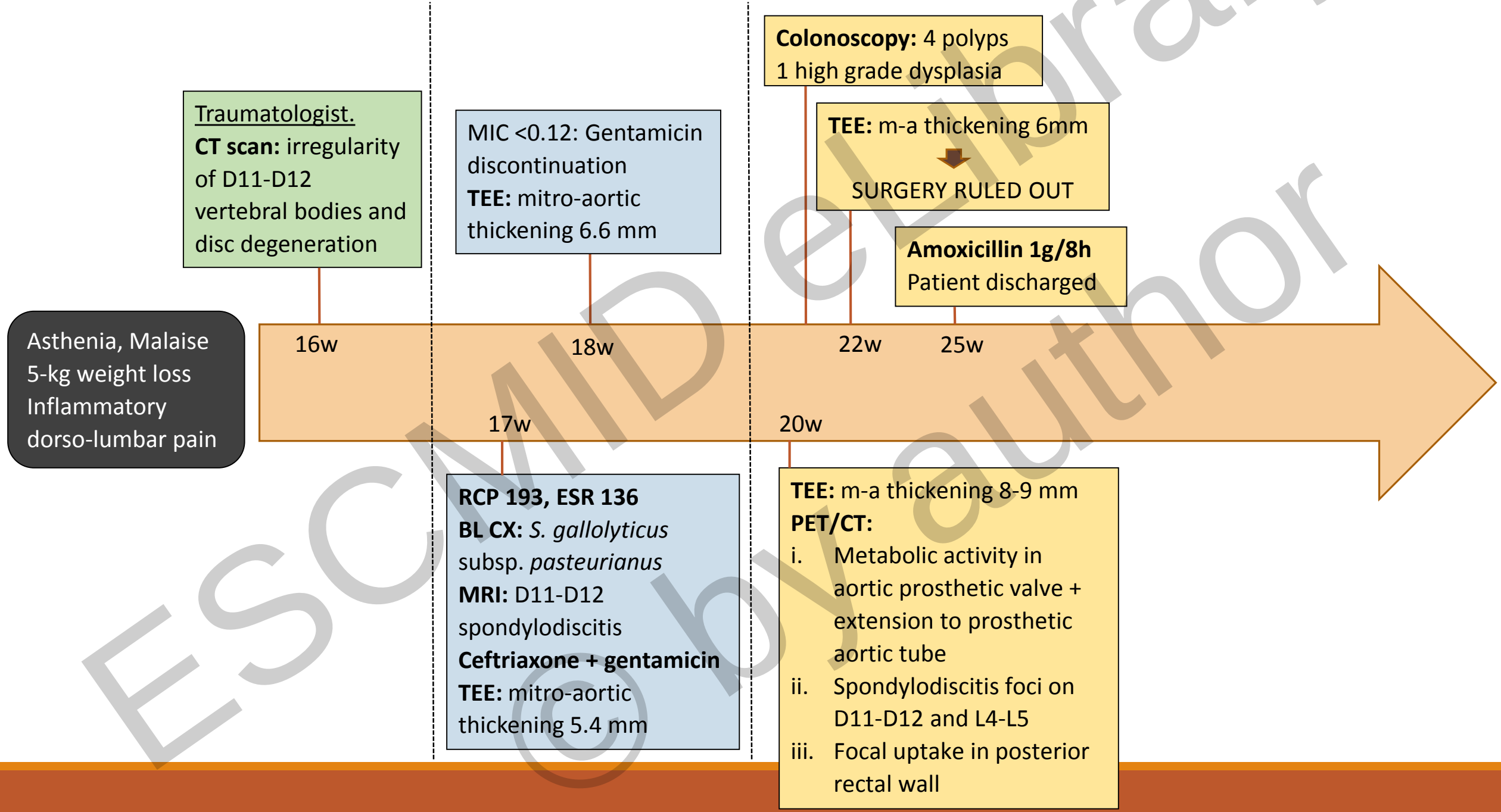
Patient related factors			Cardiac related factors		
Age [1] (years)	0	0	NYHA	select	0
Gender	select	0	CCS class 4 angina [8]	no	0
Renal impairment [2] *See calculator below for creatinine clearance*	normal (CC >85ml/min)	0	LV function	select	0
Extracardiac arteriopathy [3]	no	0	Recent MI [9]	no	0
Poor mobility [4]	no	0	Pulmonary hypertension [10]	no	0
Previous cardiac surgery	no	0	**Operation related factors**		
Chronic lung disease [5]	no	0	Urgency [11]	elective	0
Active endocarditis [6]	no	0	Weight of the intervention [12]	isolated CABG	0
Critical preoperative state [7]	no	0	Surgery on thoracic aorta	no	0
Diabetes on insulin	no	0			
EuroSCORE II	0				
EuroSCORE II					
Note: This is the 2011 EuroSCORE II	Calculate	Clear			

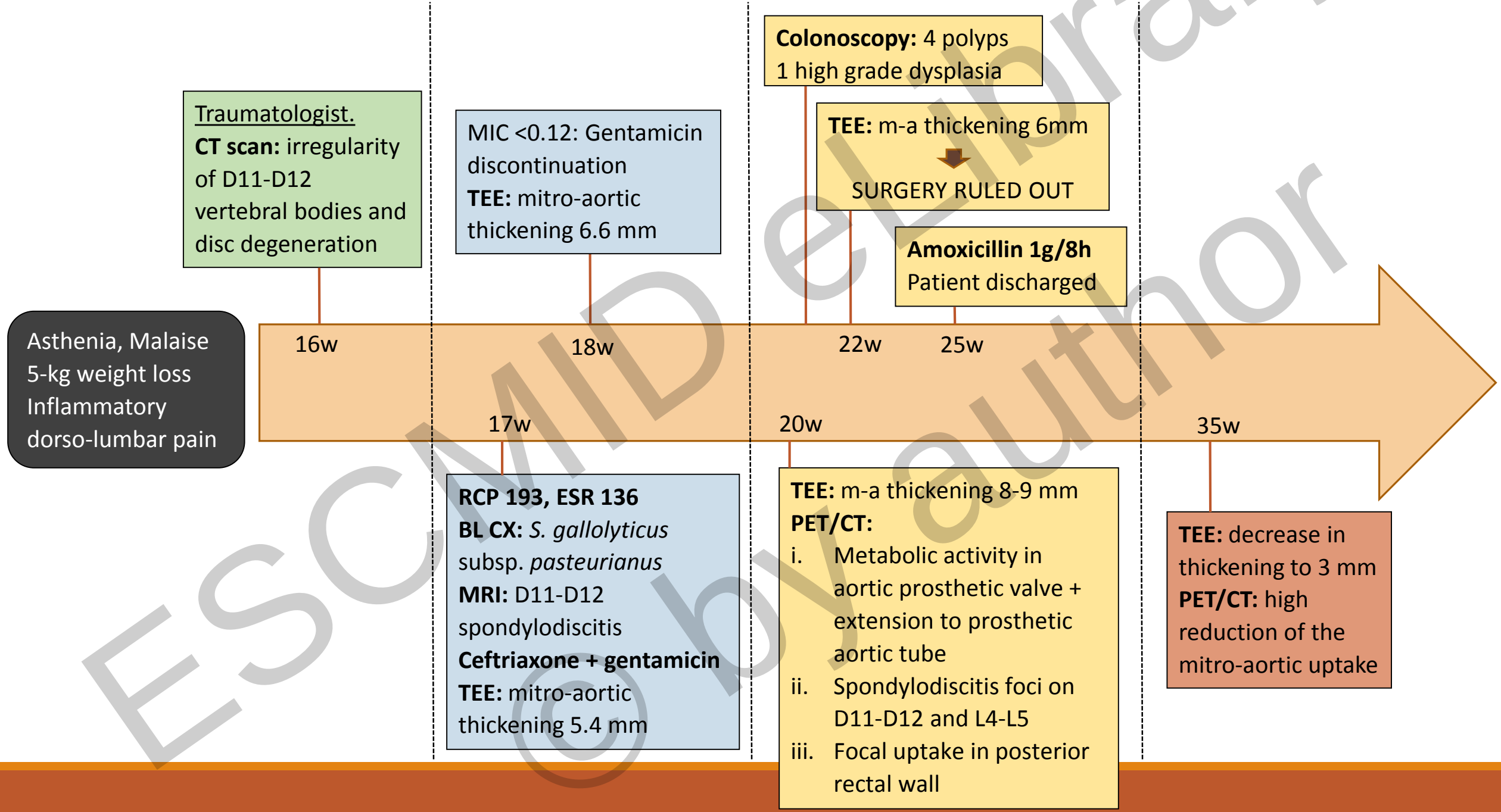
High surgical risk

Clinical stability

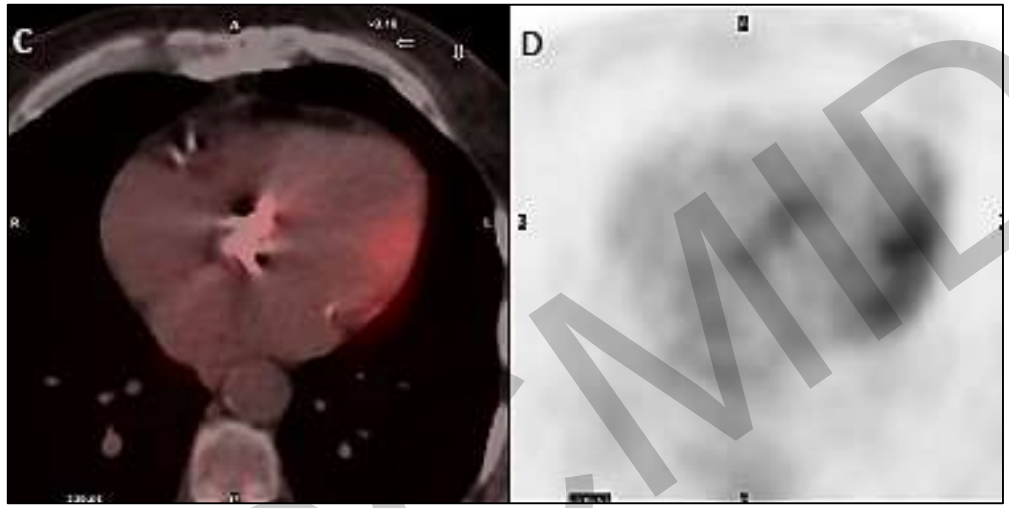
S. gallolyticus

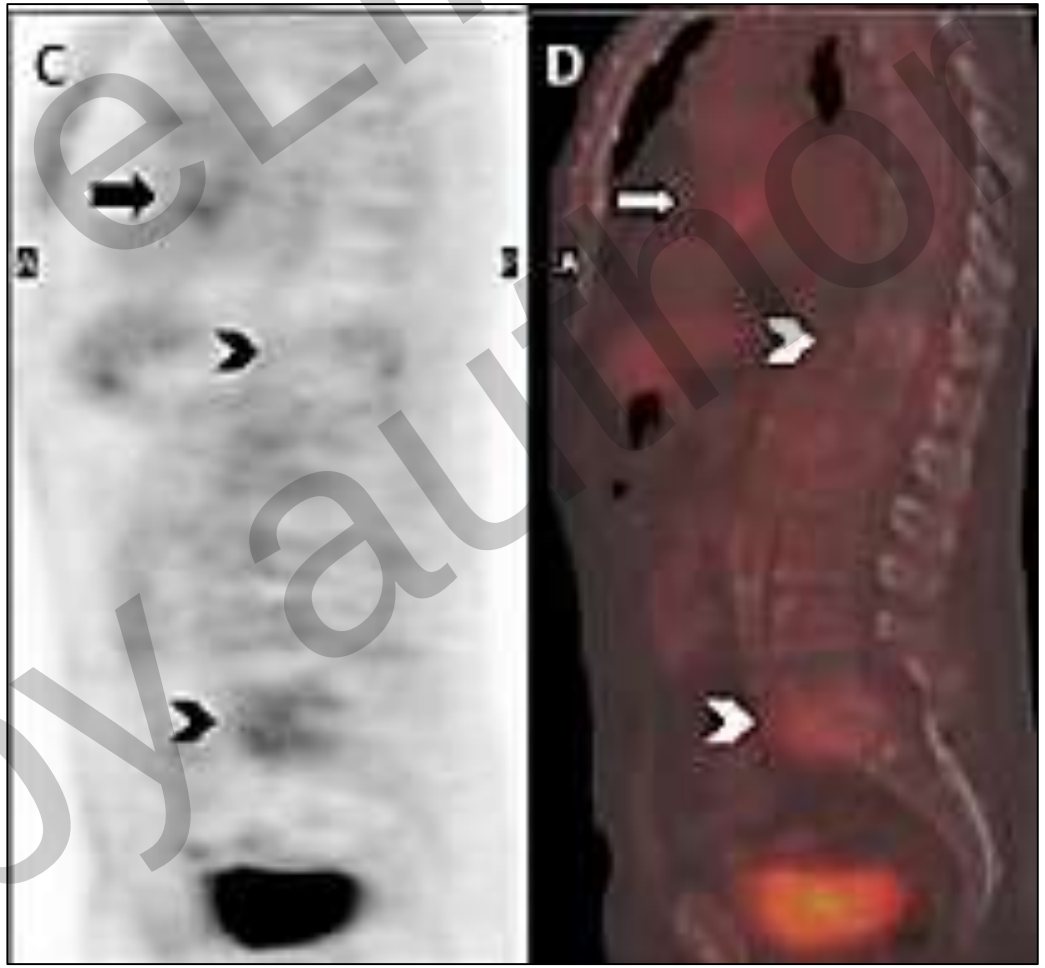


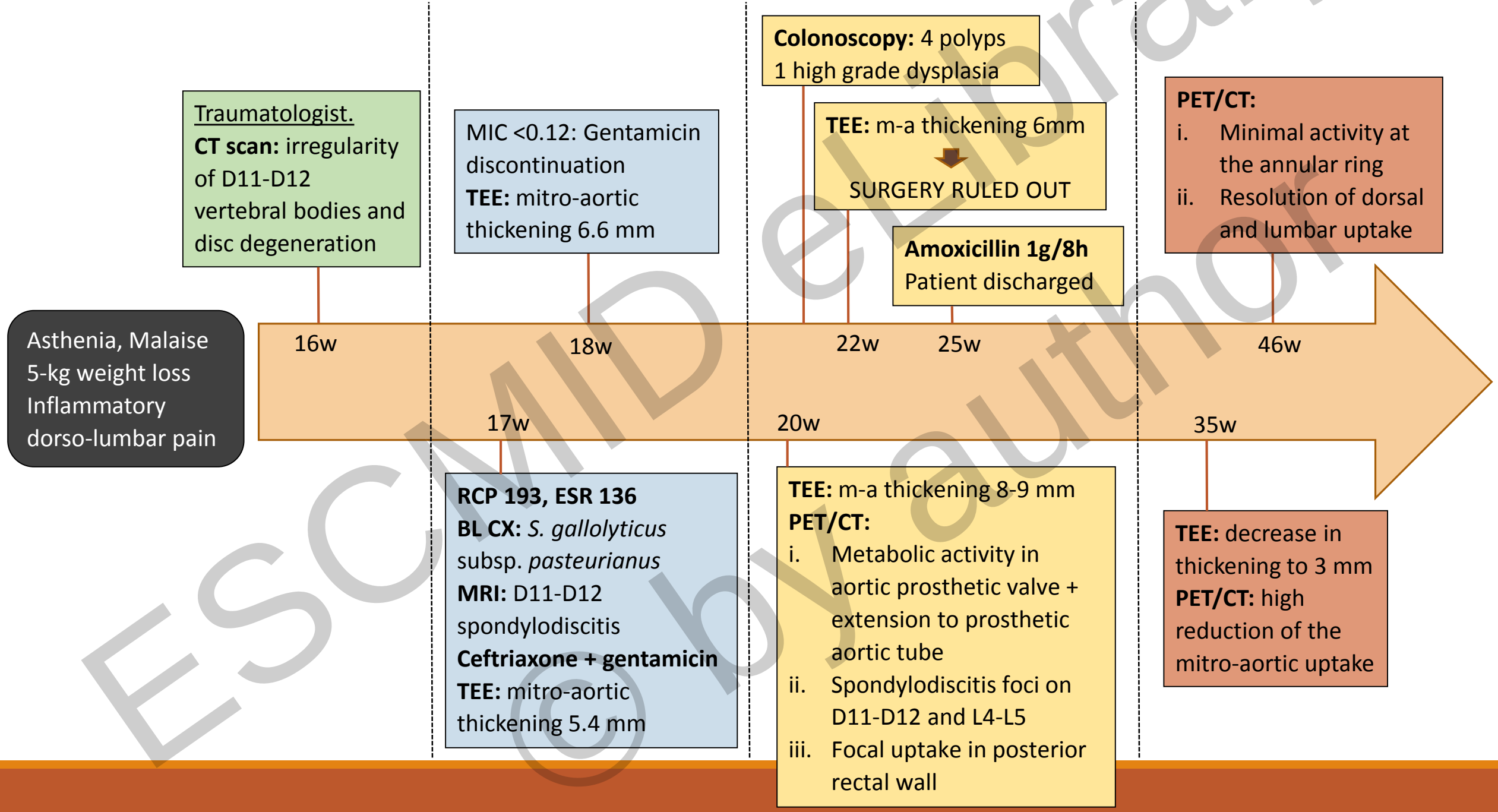




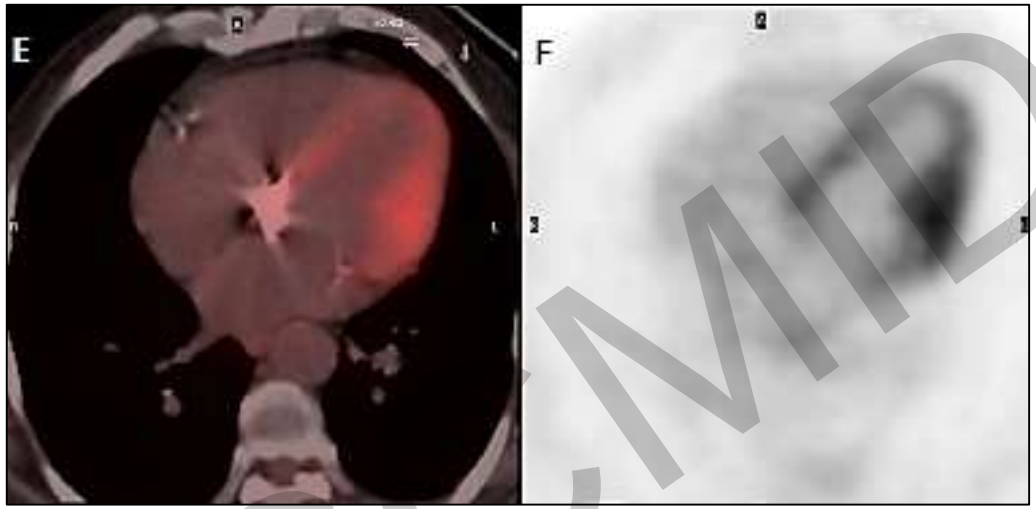
Axial and sagittal images on PET/CT at week 18 of antibiotic treatment.

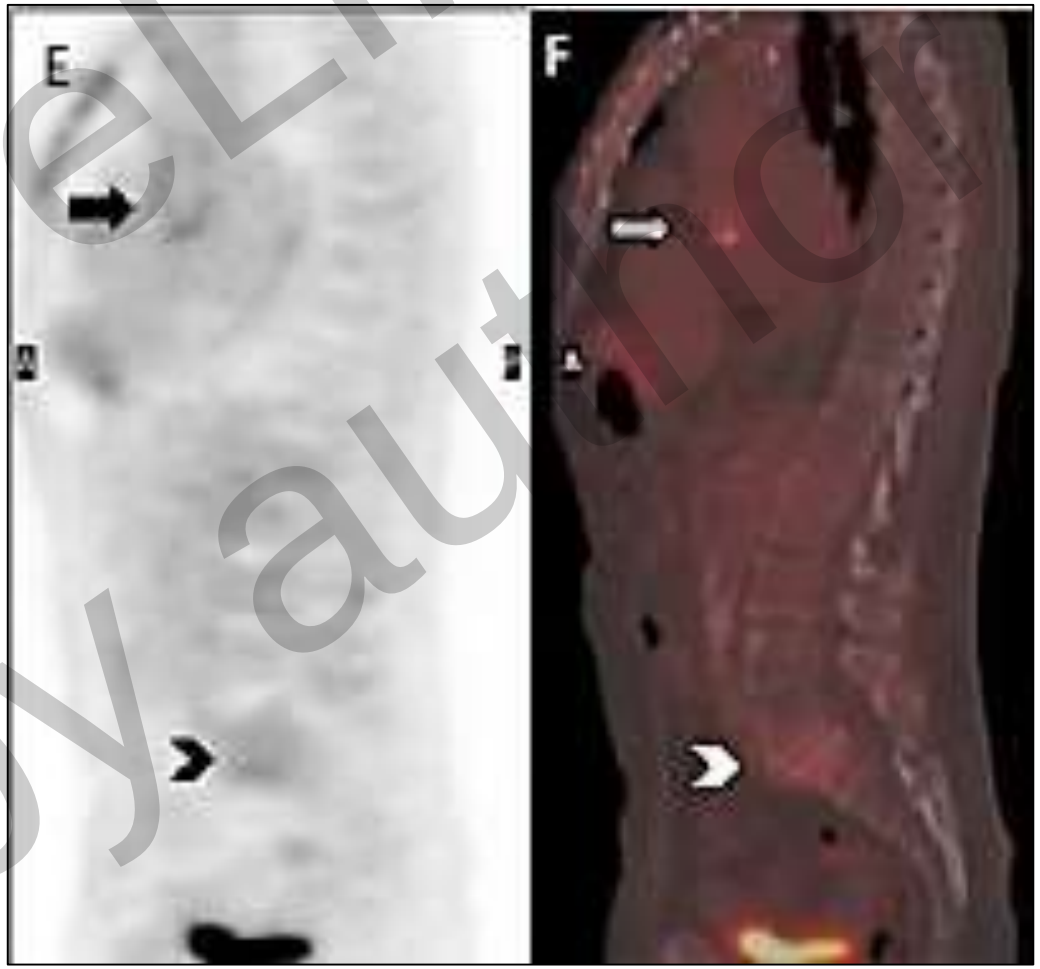






Axial and sagittal images on PET/CT at week 29 of antibiotic treatment.





FOLLOW UP

1 week Gentamicin 3mg/kg/d + Ceftriaxone 2g/d

7 weeks Ceftriaxone 2g/d

10 months Amoxicillin 1g/8h

- Antibiotic treatment was discontinued after 12 months
- Patient asymptomatic and fully recovered
- Periodical PET/CT and TEE follow-up

FOLLOW UP

- Recently, PET/CT control (image not available) showed a slightly increase in uptake
- RCP, ESR and leukocytes are normal
- Blood cultures are negative

WHAT SHOULD WE DO NOW?

TAKE-HOME MESSAGES

- Risk-benefit evaluation of surgery is essential to decide the management of these patients
- PET/CT increases the sensitivity of Duke criteria in prosthetic valve endocarditis and detects metastatic septic emboli and occult primary tumors, even when clinically silent
- Metabolic activity measured by PET/CT can be employed to monitor response to treatment

DANKE SCHÖN!!

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