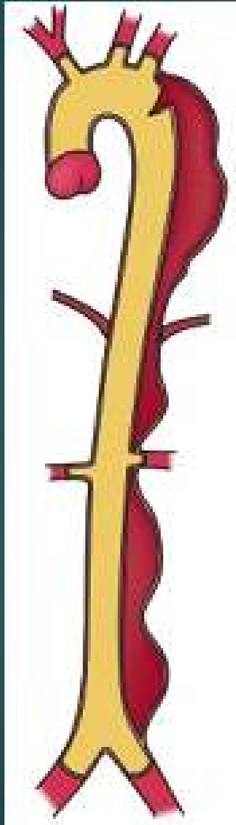
TYPE B DISSECTION



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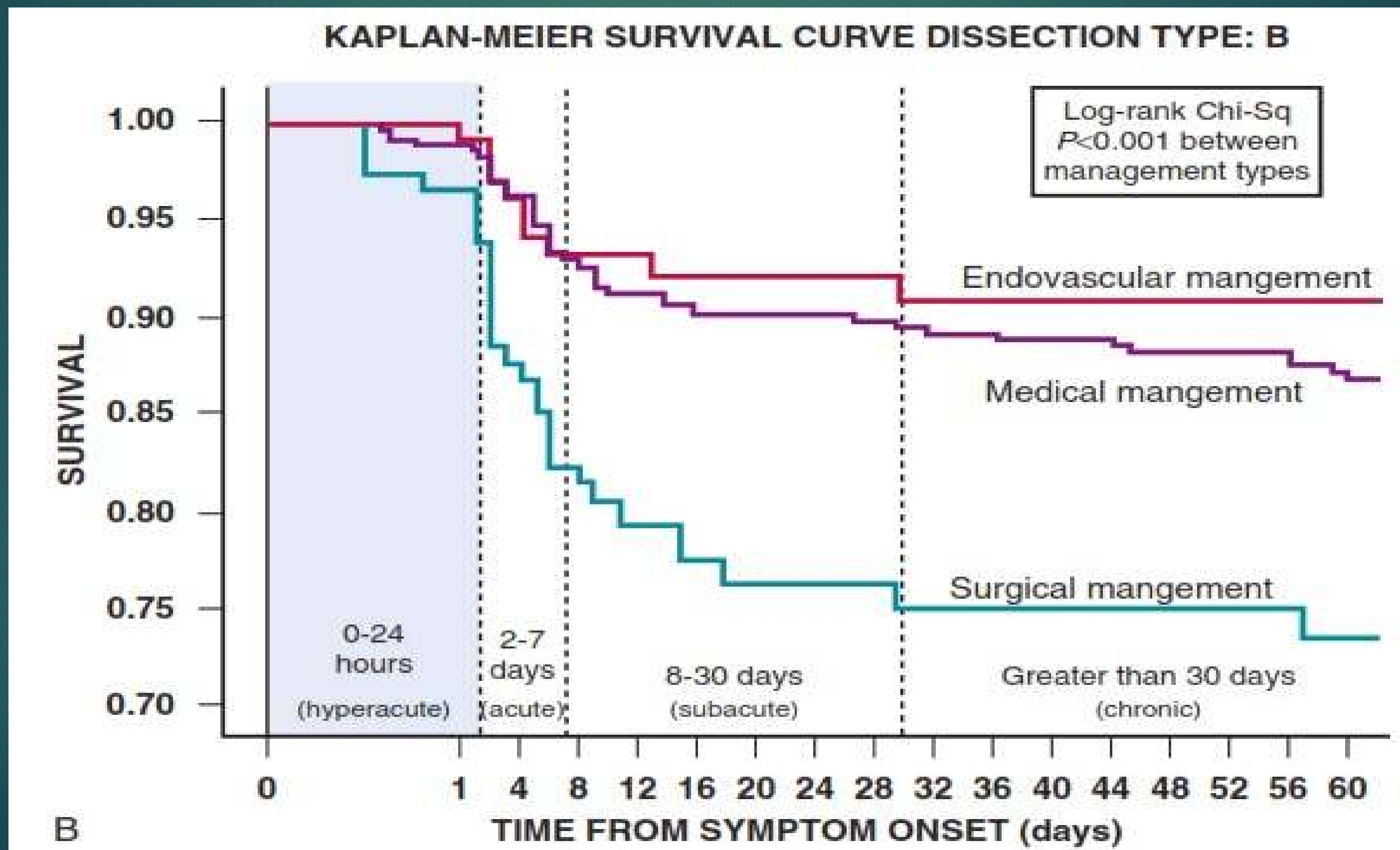
Type B: Dissection of Aorta which does not involve the ascending Aorta



- In uncomplicated acute type B dissection, the in-hospital mortality rate is much lower , as low as 1% to 6% in those requiring only medical therapy.

So initial medical therapy is recommended for type B dissections.

- Most patients with type B dissection are hypertensive.
- **Management:**
- **If patient is not hypotensive at presentation:**

Intravenous rate and pressure control

Rate/pressure control (1)
Intravenous beta blockade
or
labetalol
(If contraindication to beta blockade, substitute diltiazem or verapamil)

Titrate to heart rate < 60

Pain control (2)
Intravenous opiates

Titrate to pain control

Secondary pressure control

BP control (3)
Intravenous vasodilator
Titrate to BP <120 mm Hg
(Goal is lowest possible BP that maintains adequate end-organ perfusion)

If Hypotensive or in shock:

Type B dissection

1. Intravenous fluid bolus
   - Titrate to MAP of 70 mm Hg or Euvolemia (If still hypotensive, begin intravenous vasopressor agents)
2. Evaluate cause of hypotension
   - Review imaging study for evidence of contained rupture
   - Consider TTE to evaluate cardiac function
3. Urgent surgical consultation

If cause of hypotension is amenable to operative management,
then Operative or Interventional management must be performed urgently.

If stable with medical management:

Ongoing medical management

Close hemodynamic monitoring
Maintain systolic BP <120 mm Hg
(Lowest BP that maintains
end-organ perfusion)

Evaluate for probable complications

If no complication

Transition to oral medications
(beta blockade/antihypertensive regimen)
Outpatient disease surveillance imaging

Complications requiring operative or interventional management?

Malperfusion syndrome
Progression of dissection
Aneurysm expansion
Uncontrolled hypertension

Operative or interventional management

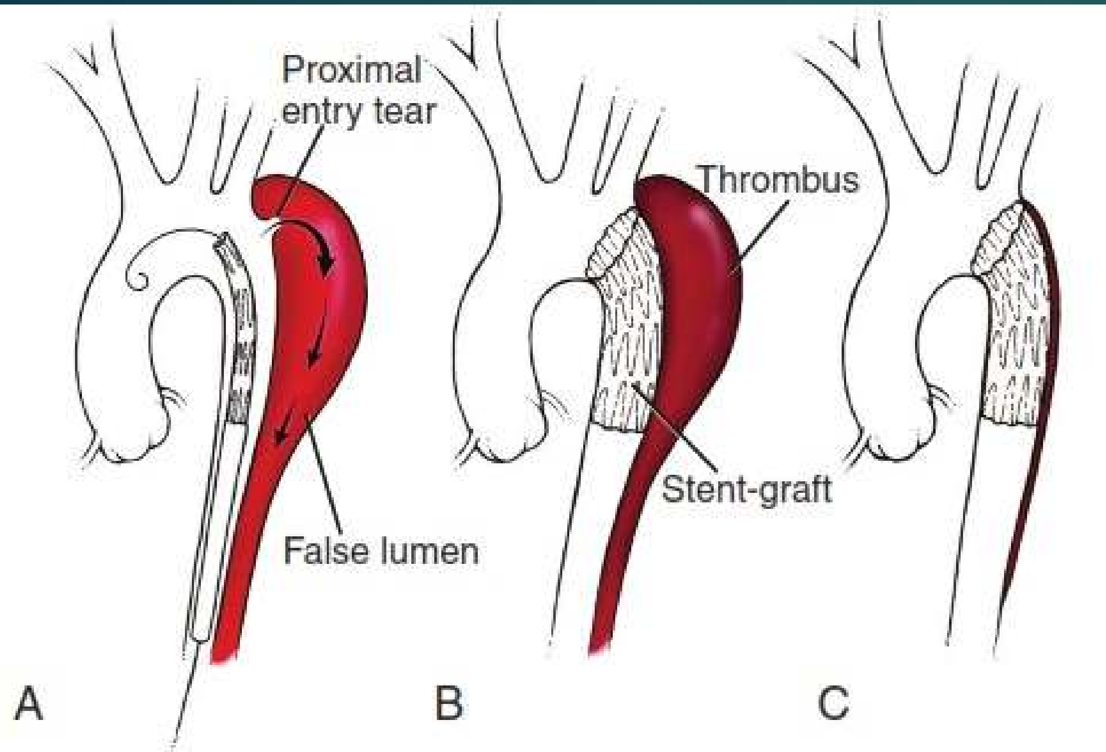
Evaluate malperfusion of :
CNS, Mesentre, Kidney, Limbs

TABLE 63.7 Indications for Thoracic Endovascular Aortic Repair for Type B Aortic Dissection*

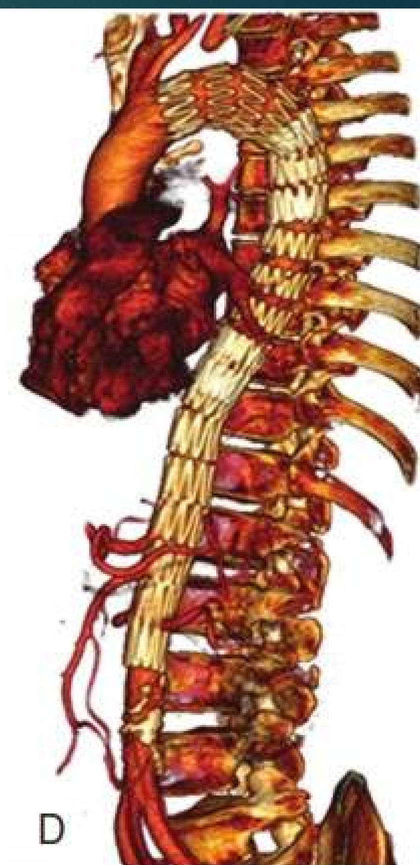
Rupture
Impending rupture
Malperfusion
Hemorrhagic pleural effusion
Refractory pain
Refractory hypertension
Aneurysmal dilation (>55 mm)
Rapid increase in diameter
Recurrent symptoms

*Or open surgical repair if anatomy is unsuitable for TEVAR.

TEVAR, entails lower morbidity and mortality than OSR


Proximal
entry tear
False lumen
Thrombus
Stent-graft
A
B
C

C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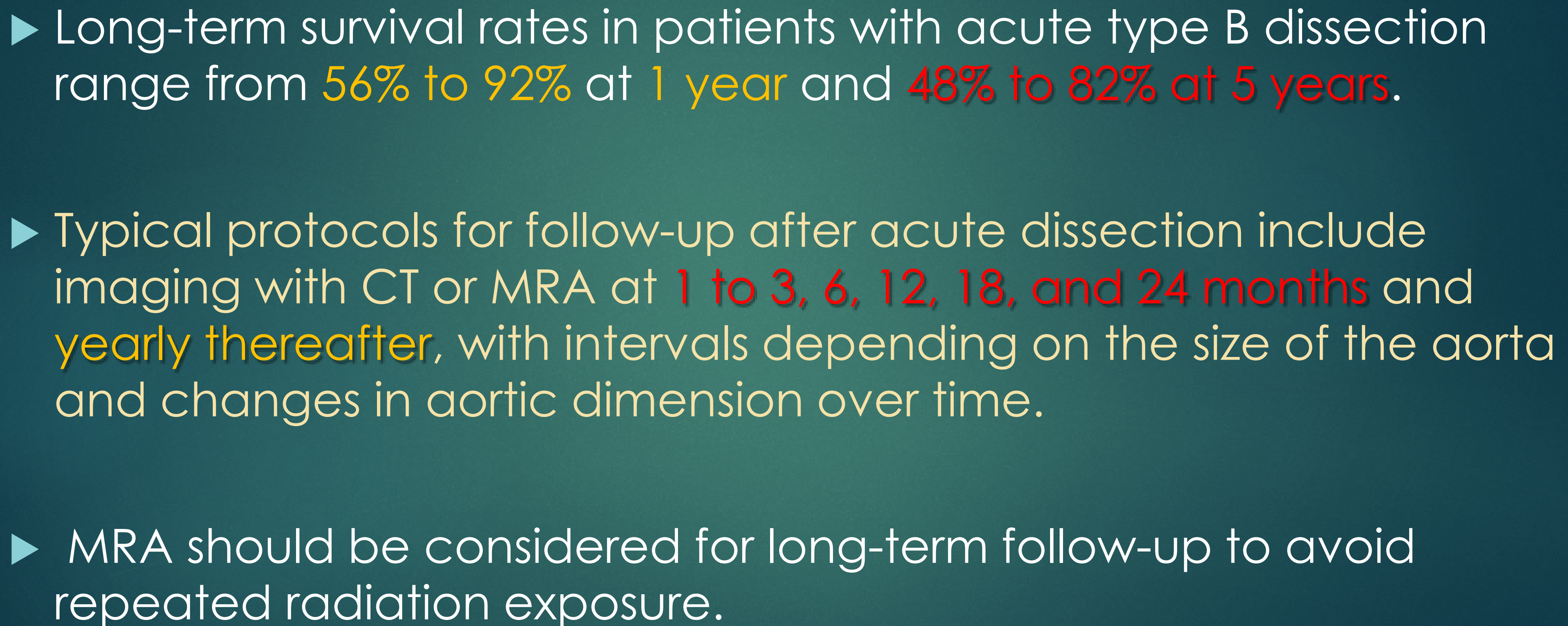
- Patients with uncomplicated type B aortic dissection have a risk for long-term complications, including aneurysm formation (especially in distal part of Arch) and late rupture.
- Whether early TEVAR of uncomplicated type B dissection changes the morbidity and mortality of uncomplicated type B dissection is under investigation.
- The INSTEAD trial reported no difference in all-cause mortality between patients with uncomplicated chronic type B dissection treated with TEVAR versus medical therapy.
- Typical indications for TEVAR (or OSR) in chronic type B aortic dissection include progressive aortic enlargement (>10 mm/y), aneurysmal enlargement (>55 mm), malperfusion syndromes, and recurrent pain.


Long-term survival rates in patients with acute type B dissection range from 56% to 92% at 1 year and 48% to 82% at 5 years.
Typical protocols for follow-up after acute dissection include imaging with CT or MRA at 1 to 3, 6, 12, 18, and 24 months and yearly thereafter, with intervals depending on the size of the aorta and changes in aortic dimension over time.
MRA should be considered for long-term follow-up to avoid repeated radiation exposure.