

**Acute vascular events
in the orbit**

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Acute vascular events in the orbit

Intraorbital haemorrhage
Vascular shunts
Vascular occlusion

**Common symptoms of acute vascular
events in the orbit**

Rapid onset – often overnight
Proptosis, often only late bruising
Global reduction in EOM / increased IOP
Acute episcleral vasodilation
Pain and nausea / vomiting
Pulsating headache / rushing sound

Acute vascular events in the orbit (I)

Intraorbital haemorrhage
Vascular shunts
Vascular occlusion

Sources for orbital haemorrhage

Normal vessels

- spontaneous haemorrhage very rare
- extreme Valsalva manoeuvre (delivery)
- generally post-traumatic

Vasculopathy

- quite common in elderly on anti-platelet drugs

Vascular malformation

- common in venous-lymphatic malformations
- rare in arterio-venous malformations

Neoplastic vessels

- haemorrhage in (from) tumours is distinctly rare

Treatment for orbital haemorrhage

Traumatic acute arterial bleed

- intermittent firm pressure to tamponade bleeder
- consider large lateral cantholysis
- explore if worsening neuropathy and not stopping

Acute vasculopathic bleed

- generally no treatment required
- drain if very large bleed (?stop anti-platelet drug)

Limited venous/lymphatic bleed

- watch if mild or no optic neuropathy and exposure
- treat exposure with “Cling-film” occlusion etc.
- drain or excise blood cysts if marked neuropathy, corneal exposure, or for persistent gross mass

Acute vascular events in the orbit (II)

Intraorbital haemorrhage

Vascular shunts

Vascular occlusion

Vascular shunts affecting the orbit

High-flow A-V shunt solely in orbital

Low-flow (“dural”) intracranial A-V shunt

High-flow intracranial A-V shunt (“CCF”)

Acute vascular events in the orbit (III)

Intraorbital haemorrhage

Vascular shunts

Vascular occlusion

Orbital vascular occlusion

Very rare in isolation

Occurs in venous/lymphatic anomalies

Vaso-occlusive inflammations or infections

Rarely occurs with prolonged orbital
compression

**Summary: Common symptoms of acute
vascular events in the orbit**

Rapid onset – often overnight

Proptosis, often only late bruising

Global reduction in EOM / increased IOP

Acute episcleral vasodilation

Pain and nausea / vomiting

Pulsating headache / rushing sound

**Summary: Management of acute
vascular events in the orbit**

Arterial bleed with visual impairment – watch closely
and intervene rapidly if necessary

Vasculopathic bleed – watch, as most require no treatment

Venous/lymphatic anomalies – watch majority, but drain
or resect vessels and haemorrhagic cysts if
optic neuropathy or massive proptosis is present

Shunts – monitor visual functions and intraocular
pressures, with radiological intervention if deteriorating