EPISTAXIS

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EPISTAXIS

Bleeding from the nose
Age Incidence

- Children
- Elderly
Clinical Features

• Degree of bleeding varies greatly
  trivial → lethal

• Usually from anterior nares - Little’s area
  - Unilateral
  - (occasionally bilateral)
Clinical Features

- Occasionally - posterior into nasopharynx
  - inhaled - haemoptysis
  - swallowed - haematemesis
  - melaena
Sites of bleeding

- Nasal Septum
  - Little’s Area (Kiesselbach’s plexus)
    ~90% of epistaxis seen in hospitals
    ~vessel often visible
  - Rest of septum
    ~spurs, convexities (turbulent flow)
Sites of bleeding

- Nasal Septum
  - Little’s Area (Kiesselbach’s plexus)
    ~90% of epistaxis seen in hospitals
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    ~spurs, convexities (turbulent flow)
Sites of bleeding (cont)

- Inferior turbinate & nasal floor
- Middle turbinate - anterior ethmoidal vessels
- Middles meatus - rare (suspect neoplasm)
- Sinuses - rarely from vessels in maxillary/ethmoid sinuses
Sites of bleeding
Vessels Involved

- Anterior ethmoid
- Posterior ethmoid
- Sphenopalatine
- Superior labial

\{ \text{Internal carotid} \}

\{ \text{External carotid} \}
Nasal cavities - blood supply

Rich supply from 2 branches of Common Carotid:

- **Ext. Carotid** - maxillary a. - most
- **Int. Carotid** - ethmoidal aa.- roof
Aetiology

- “Idiopathic” - Spontaneous
- Trauma
- Inflammatory
- Neoplastic
- Blood - vessel
  - clotting
- Environmental
- Drugs - prescribed
  - recreational
“Idiopathic”

- “Spontaneous” is a better description

- Usually initiated by minor ‘digital’ trauma

- Often associated with atmospheric drying
Trauma

• Abrasion of the nasal mucosa - often trivial

• Fracture of the bones or cartilage
  - deformities & spurs

• Fracture through sinuses and/or skull base
Trauma (cont)

- Nasal surgery
- Nasal intubation
- Introduction of foreign objects
- Digital trauma - NOSE PICKING
NOSE PICKING

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Inflammatory

- Rhinitis - allergic - irritation
  - (polyps)
  - viral
- bacterial - vestibulitis
  - other
- (Sinusitis)
Inflammatory

- Wegener’s granulomatosis
- Sarcoidosis
Neoplastic - benign

• Antrochoanal polyp

• “Inverting” papilloma  (Ringert’s tumour)
  (Scheiderian papilloma)

• Juvenile angiofibroma
Neoplastic - malignant

- Basal Cell Ca
- Squamous Ca
- Malignant Melanoma (NB amelanotic variety)
- (Nasopharyngeal ca)
- (Adeno Ca /Adenoid cystic Ca)
- Leukaemia
Blood - vessel

- Atherosclerosis
- Collagen vascular diseases
- Familial Haemorrhagic Telangiectasia
  (Osler-Weber-Weber-Rendu disease)
Osler-Weber-Rendu
Blood - clotting

- Haemophilia
- Factor deficiencies (Christmas disease, etc)
- Idiopathic Thrombocytopenic Purpura
- Vitamin C & K deficiencies
- Severe liver disease
HYPERTENSION

• Is **NOT** a cause but contributes

• Once epistaxis has occurred, it is more difficult to control in the presence of:
  - hypertension
  - tachycardia
  - raised venous pressure
Environmental

- High altitudes (drier and lower atm. pressure)
- Air-conditioning
- Extreme changes in temperature
Drugs - prescribed

- Anticoagulants - Warfarin / Heparin
- Aspirin - platelet function inhibitor
- (other NSAIDS)
Drugs - recreational

- Cocaine - vasoconstrictor / local anaesthetic
  - impurities
  - frequent use - ischaemia
    - rebound hyperaemia
    - mucosal necrosis
Management – immediate
(forget granny)

• Position
• Pressure
• Pulse / BP
• Cautery
• Packing
Management - immediate

• Position
  - sitting upright
  - inclined slightly forward
  - mouth open
  - spit out any blood
  - vasoconstrictors (simple)
Management - immediate

• Pressure
  - cartilage of nose
  - over Little’s area
  - constant

ICE PACKS
5 minute pressure - correct
Incorrect
Management – immediate (while applying pressure)

- Pulse / BP
  - assess status
  - assess blood loss
  - replace fluid as needed

Patience
Management - immediate

- Cautery - clear nose
- suction
- “hawk”
- inspect
- bleeding vessel
- local / vasoconstrictor (cocaine)
- cauterise
- AgNO3
- electro-
Management - immediate

- Packing - anterior - local anaes/vasoconstrictor
  (12 hrs)
- BI PP gauze
  Bismuth
  Iodoform
  Paraffin
  Paste
  (48 hrs +)

SEDATION

Antibiotics (eg amoxycillin) if for more than 24 hrs
Packing - anterior

- local anaesthetic
- BIPP impregnated gauze in layers
Management - immediate

- posterior - balloon
- “double” balloon
- Foley catheter

\{ p. n. space \}

(12 –24 hrs)

SEDATION

Antibiotics if for more than 24 hrs
Packing - posterior

- Inflatable balloons
- Saline better than air
Management – persistent epistaxis

- Repeat - “idiot” concept
Management – persistent epistaxis

- Endoscopic directed cautery

probably the way forward
Management – persistent epistaxis

- Repeat in theatre “EUA” - pack, cauterise
  - access
  - septoplasty
Management – persistent epistaxis

• Embolisation  - Radiologist
  - arteriogram
  - embolus
  - may be painful

(NOT sclerotherapy)
Management – persistent epistaxis

- Arterial ligation
  - local
  - maxillary
  - ethmoidal
  - sphenopalatine

- “open” or endoscopic
Management – persistent epistaxis

• Arterial ligation
  - ECA
  - distal to lingual
  - “open” procedure
Conclusion

• Blood transfusion  - consider the necessity
  - blood
  - deficient factor(s)
  - platelets

• Prescribed drugs  - correct abnormality

• Exclude underlying disease / disorder