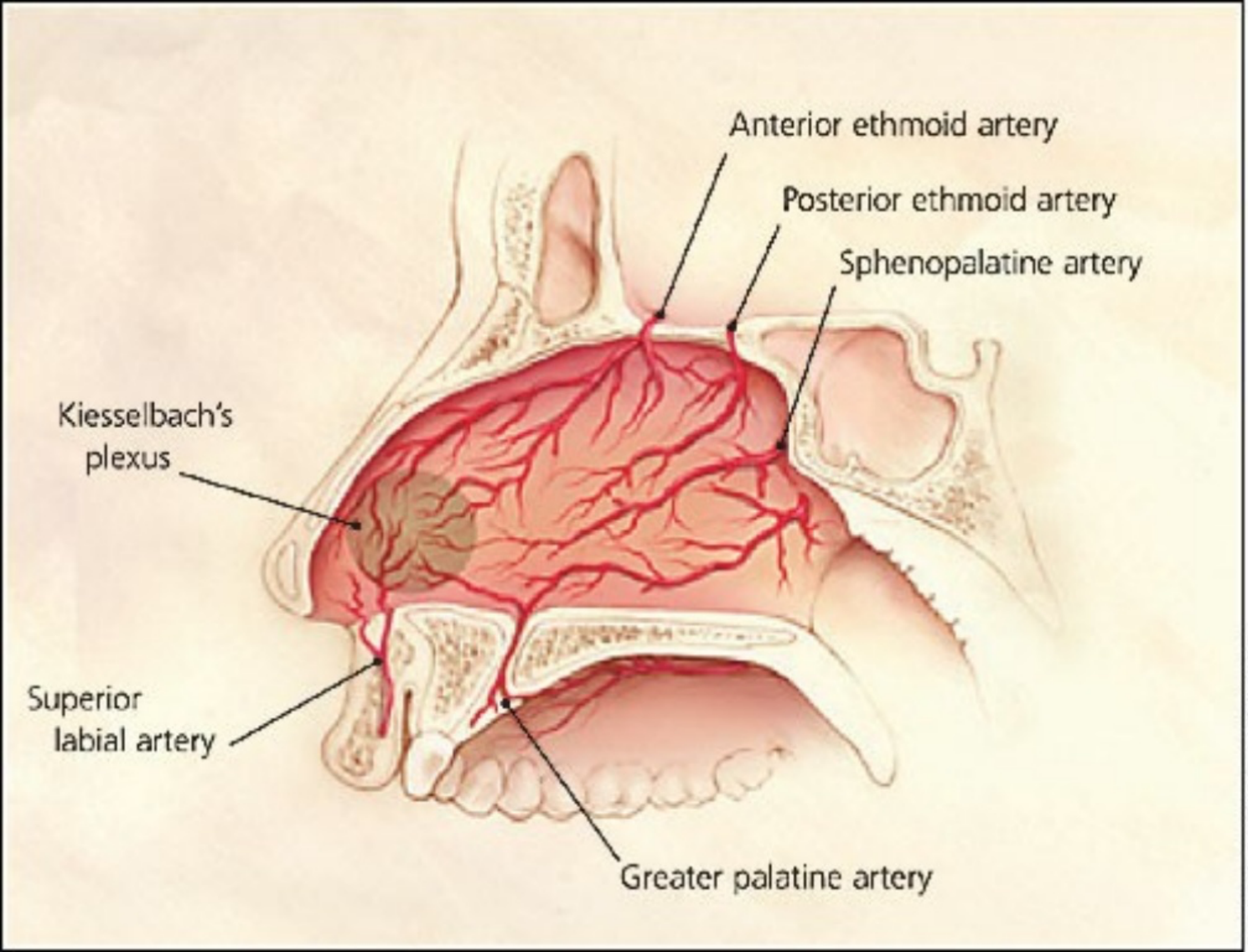
EPISTAXIS

PREPARED BY
DR . JUSTIN JEYA AMUTHA



EPISTAXIS

ANTERIOR NOSEBLEEDS ARE MOST COMMON

COMMONLY CAUSED BY TRAUMA, INCLUDING NOSE-PICKING

KIESSELBACH'S PLEXUS

MORE COMMON IN CHILDREN AND ADOLESCENTS

WOODRUFF'S PLEXUS

POSTERIOR BLEEDING IS LESS COMMON

ASSOCIATED WITH HYPERTENSION AND ATHEROSCLEROSIS

USUALLY SEEN IN THE ELDERLY

EPISTAXIS

- Bleeding from inside the nose is called epistaxis.
- Seen in all age groups.
- Presents as an emergency.
- Epistaxis is a sign and not a disease per se.

BLOOD SUPPLY OF NOSE :

- Nose is richly supplied by both the external and internal carotid systems, both on the septum and the lateral walls.

Nasal septum :

Internal carotid system :

a) Anterior ethmoidal artery
b) Posterior ethmoidal artery

} Branches of ophthalmic artery

External carotid system :

a) Sphenopalatine artery (branch of maxillary artery), gives nasopalatine and posterior nasal septal branches.

b) Septal branch of greater palatine artery (Br. of maxillary artery).

c) Septal branch of superior labial artery (Br. of facial artery).

Lateral wall :

Internal carotid system :

a) Anterior ethmoidal

b) Posterior ethmoidal

} Branches of ophthalmic artery

Types of Epistaxis

1. ANTERIOR EPISTAXIX (Most common and less severe and easy to control)

2. POSTERIOR EPISTAXIX (Less common more severe and difficult to control)

TYPES OF EPISTAXIS:

- ***Recurrent Epistaxis:-*** *in recurrent nose bleeds the episode of bloods happens only at certain periods of time. Recurrent nosebleed can be occur in seasonal patter. Its most happen when the weather get hot and dry.*

- **Constant Epistaxis:-** *this is type of nosebleed that happens for a longer period of time. The bleeding is continuously occur.(45min)*

- ***Sudden epistaxis:-*** These are nosebleeds which could happen anytime of the day, regardless of the activity of the child. Whether the child resting or playing.

- ***Chronic epistaxis:-*** condition that are continuously experienced for more then 6month. Chronic bleeding happen as result of a chronic disease this include. Chronic liver or kidney disease, vascular malformation, long term use medication.

- ***Heavy nosebleed:-*** heavy nosebleeds pertain to episodes where there is a significant amount of blood coming out of the nose. Only this type is seen immediate first aid treatment must be employed.

General causes

1. Cardiovascular system- hypertension, arteriosclerosis, mitral stenosis, pregnancy (hypertension and hormonal).
2. Disorders of blood and blood vessels- Aplastic anaemia, leukemia, thrombocytopenic and vascular purpura, haemophilia, Christmas disease, scurvy, vitamin K deficiency, hereditary haemorrhagic telangectasia.
3. Liver disease- hepatic cirrhosis (deficiency of factor

General causes…

4. Kidney disease- chronic nephritis
5. Drugs- excessive use of salicylates and other analgesics, anticoagulant therapy.
6. Mediastinal compression
7. Acute general infection- influenza, measles, chickenpox, whooping cough, rheumatic fever, infectious mononucleosis, typhoid, pneumonia, malaria, dengue fever.
8. Vicarious menstruation.

CLINICAL FEATURES

- NASAL BLEEDING
- FEVER
- HEADACHE
- BODYACHE
- GIDDINESS
- MALAISE
- NAUSEA
- VOMITING

DIAGNOSTIC EVALUATION

CT SCAN

X-RAY

BLOOD TEST

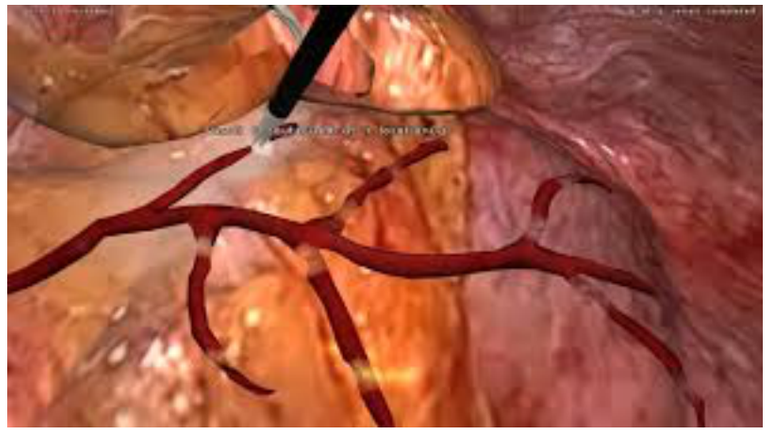
BLOOD CULTURE

Management

- First aid
- Cauterization
- Anterior Nasal packing
- Posterior Nasal Packing
- Endoscopic Cauterization
- Elevation of Mucoperichondrial flap and submucous resetion(SMR) Operation
- Ligation of vessels


Sit and lean forward slightly
Breath through mouth
Pinch nostrils
NOSEBLEED MANAGEMENT

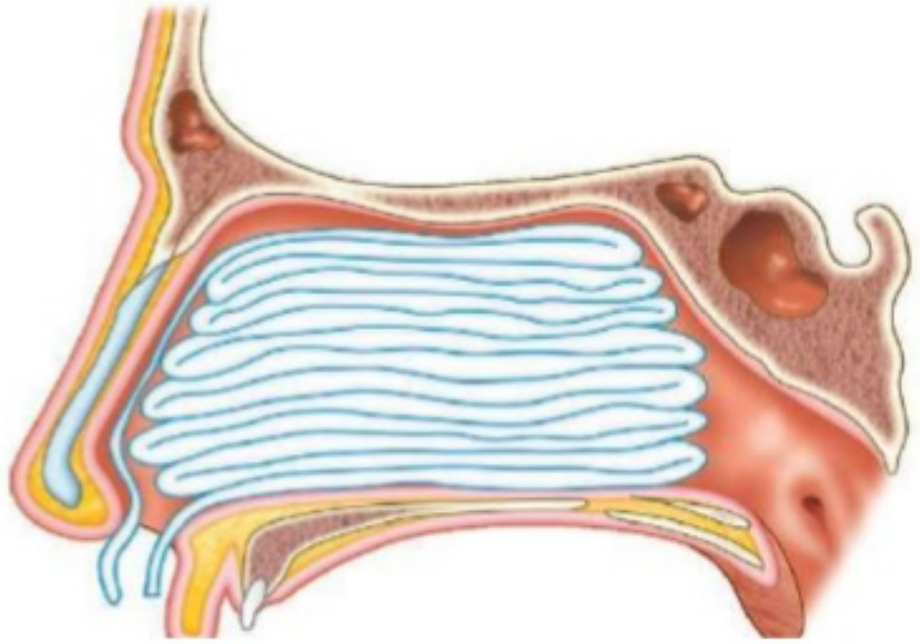
Endoscopic Cauterization

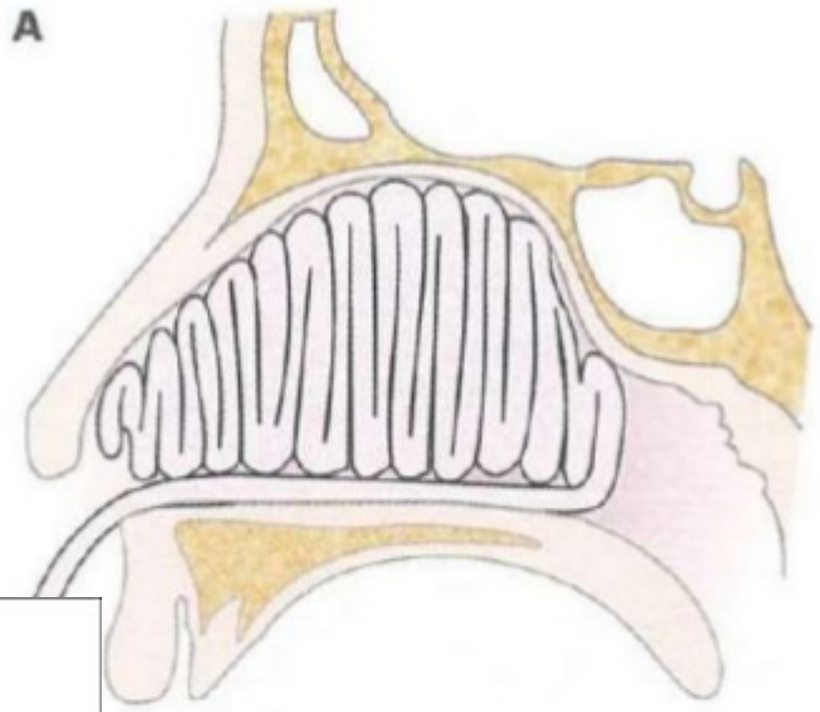


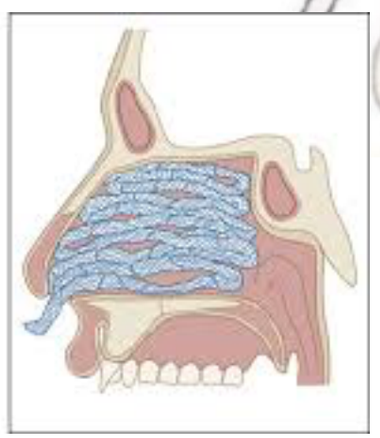
- Topical or general anesthesia, bleeding point is localized with rigid endoscopy and cauterized
- Procedure is effective with less morbidity and decreased stay
- With profuse bleeding it is very difficult to localize so this procedure can’t be carried out

Anterior Nasal Packing

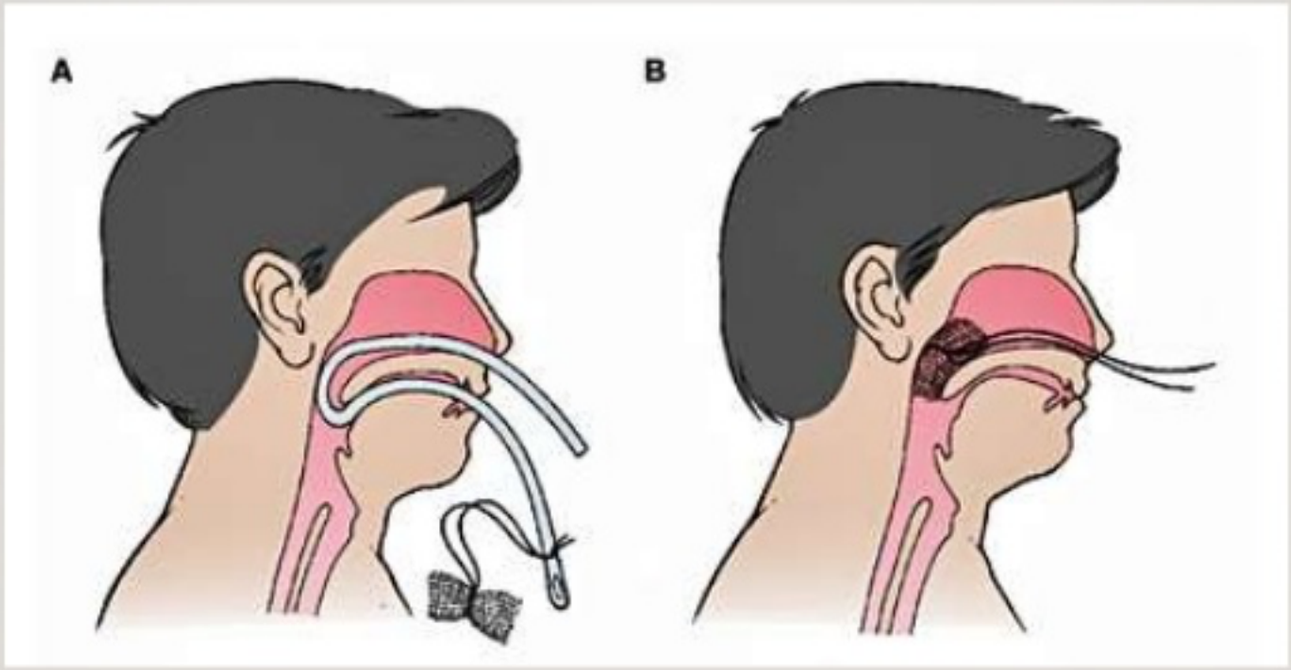
- Done if localized bleeding is profuse or bleeding point is not localize
- Use of a ribbon gauze soaked with liquid paraffin(1 m gauze; 2.5 cm gauze in adult and 12 mm in children)
- Can be done with vertical layer and horizontal layer
- Can be removed with 24 hour and can be kept upto 2-3 days
- Systemic antibiotic should be given to prevent sinus infection and toxic shock syndrome







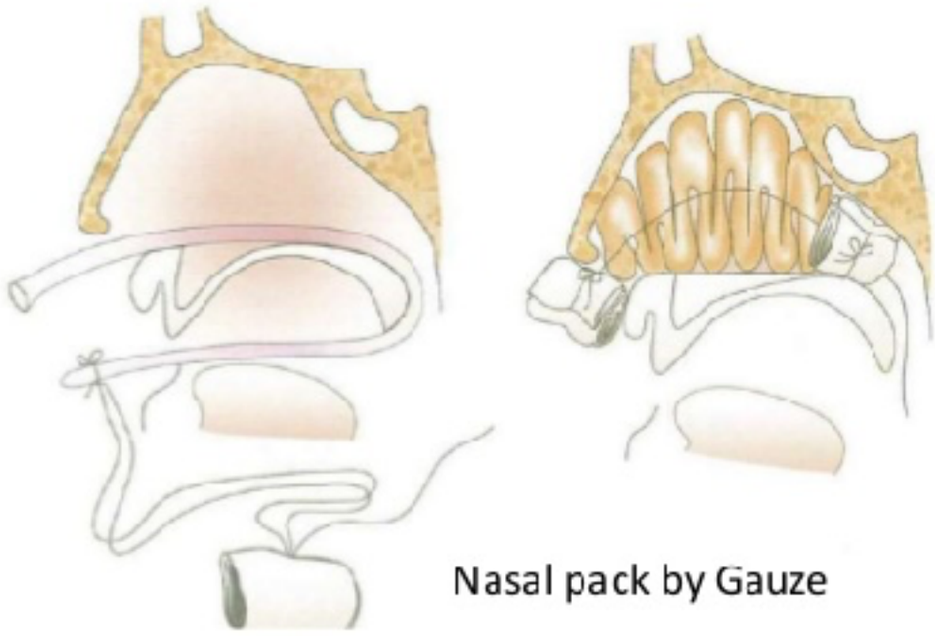
COTTON PACKING



UpToDate

Posterior Nasal Packing

- For posterior nasal bleed
- Can be carried through different instrument
  - Gauze
  - Foley's Catheterization
  - Nasal balloon



Nasal pack by Gauze

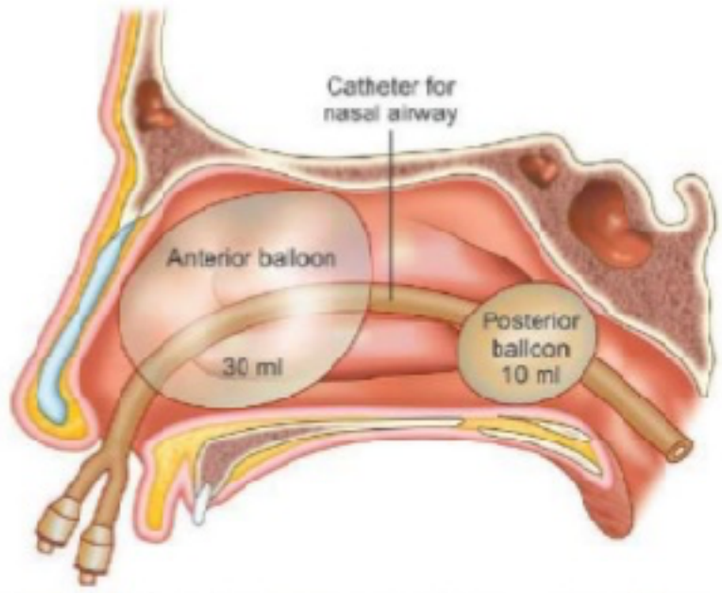
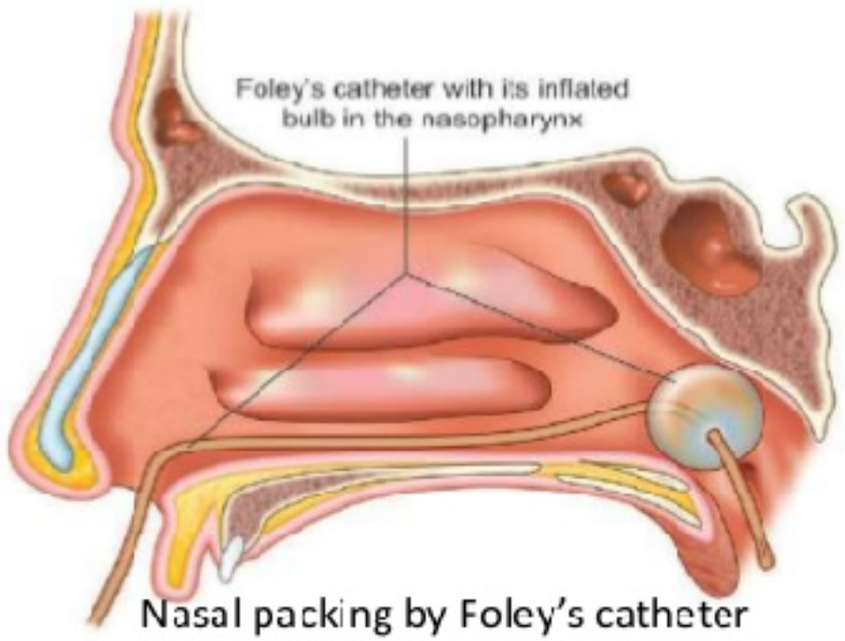


Fig. 11: Epistaxis balloon. Smaller (10 ml) posterior balloon and bigger (30 ml) anterior balloon are inflated. Channel of catheter provides airway for nasal breathing



Nasal packing by Foley's catheter

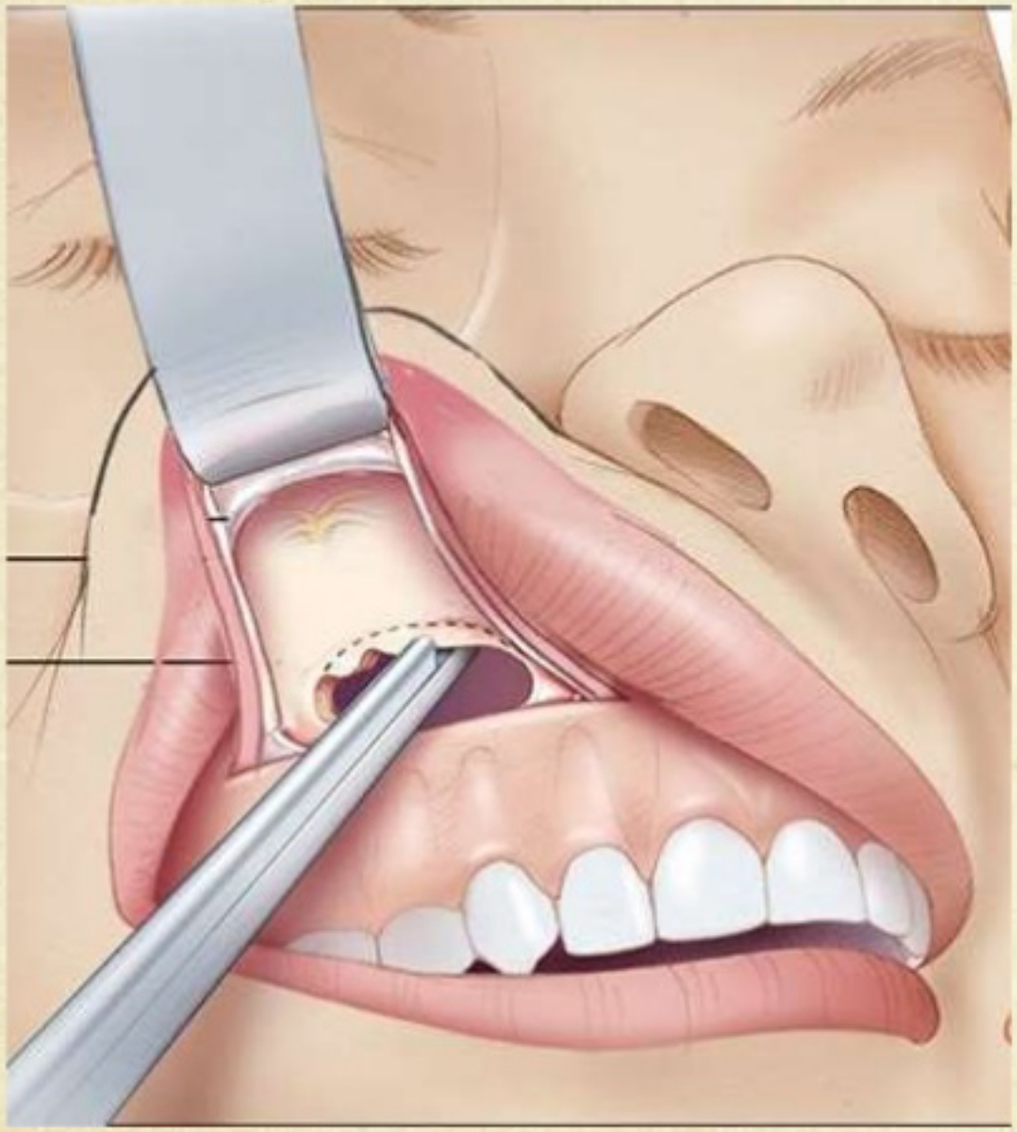
ARTERIAL LIGATION

- Sphenopalatine artery
- Anterior ethmoidal artery
- Posterior ethmoidal artery
- External carotid artery

Anterior and posterior ethmoidal artery ligation

- Lynch incision (curvilinear incision halfway between medial canthus and tip of the nasal dorsum

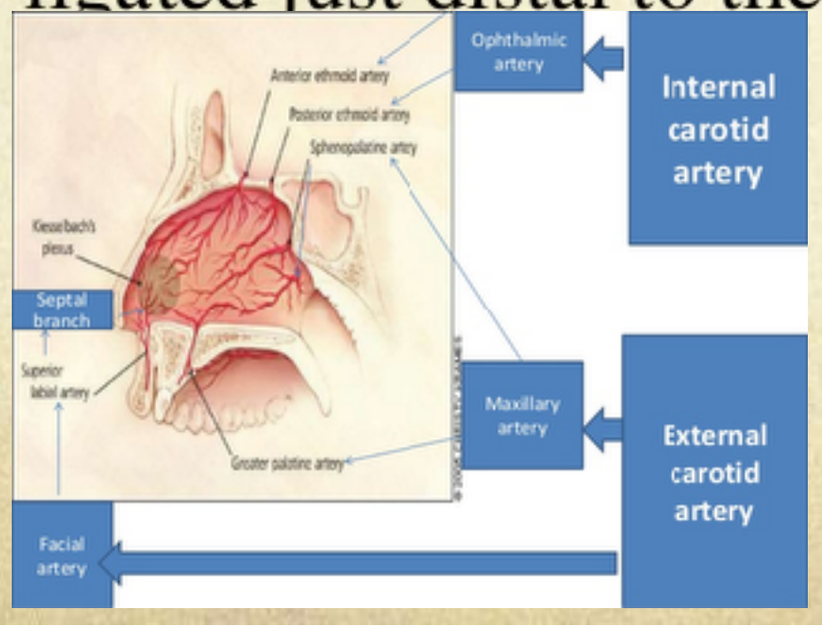
Maxillary artery ligation

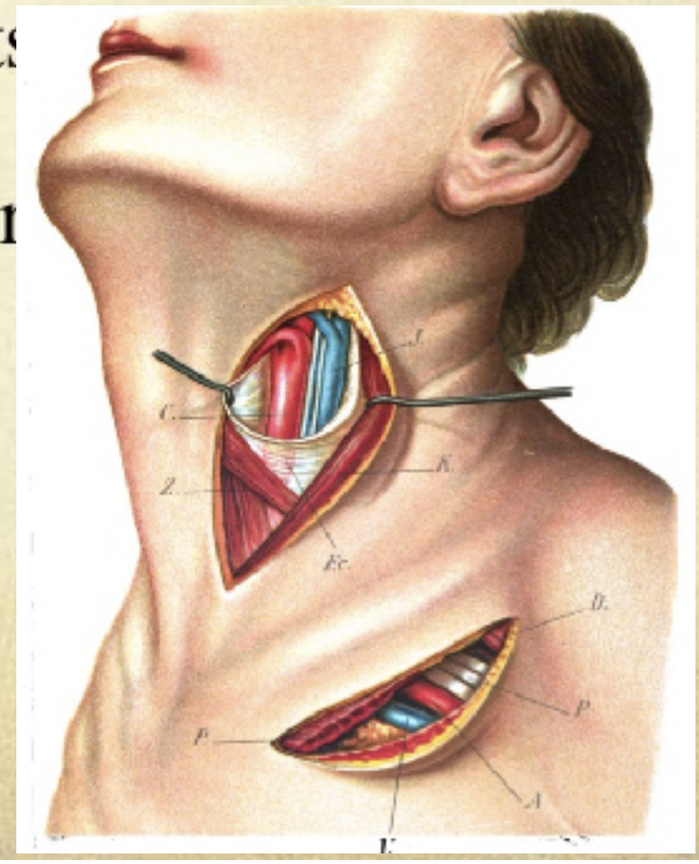


- Sublabial approach - Antrostomy formed
- Mucosa of posterior wall of antrum elevated
- Window made through pterygopalatine fossa
- Ligation of maxillary artery done

External carotid artery ligation

- Horizontal skin incision is made between the hyoid bone and the superior border of the thyroid cartilage
- Subplatysmal skin flaps are then raised, and the sternocleidomastoid muscle is retracted posteriorly.
- Carotid sheath is opened and its contents
- Usually ligated just distal to the superior artery





COMPLICATION

- CEREBRAL HAEMORRHAGE
- ASPIRATION
- SHOCK
- SEPTICEMIA
- PNEUMONIA
- CORONARY THROMBOSIS
- INTESTINE INFARTION
- RHINITIS
- MAXILLARY &FRONTAL SINUSITIS
- OTITIS MEDIA