ENT Combined Meeting Presentation

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31 Jan 06

Case presentation 1

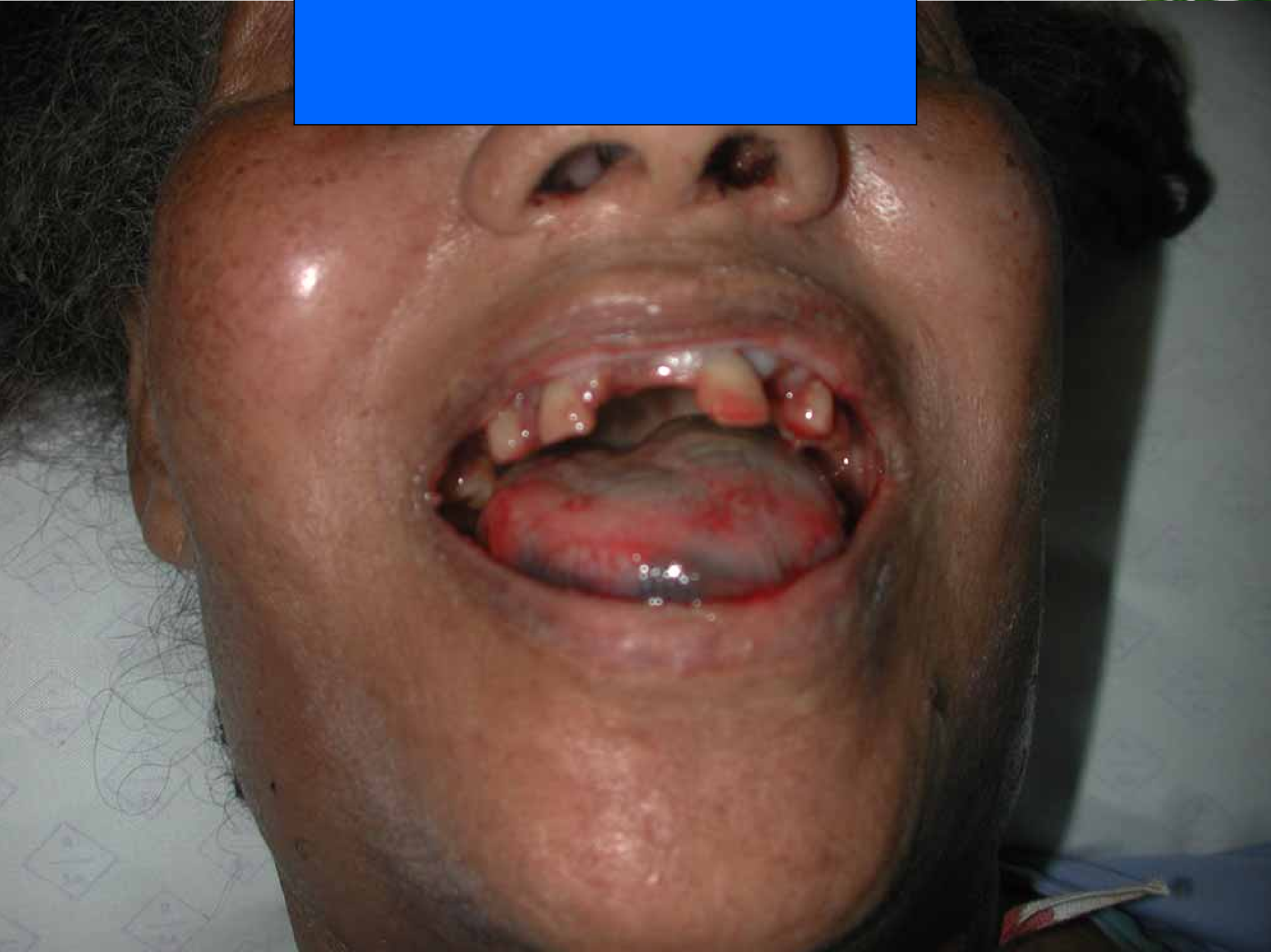
- 72 yo F
- Kuils Rivier
- Acute onset and progressive FOM swelling
- Develop progressive swelling of tongue
- Ooze blood in mouth

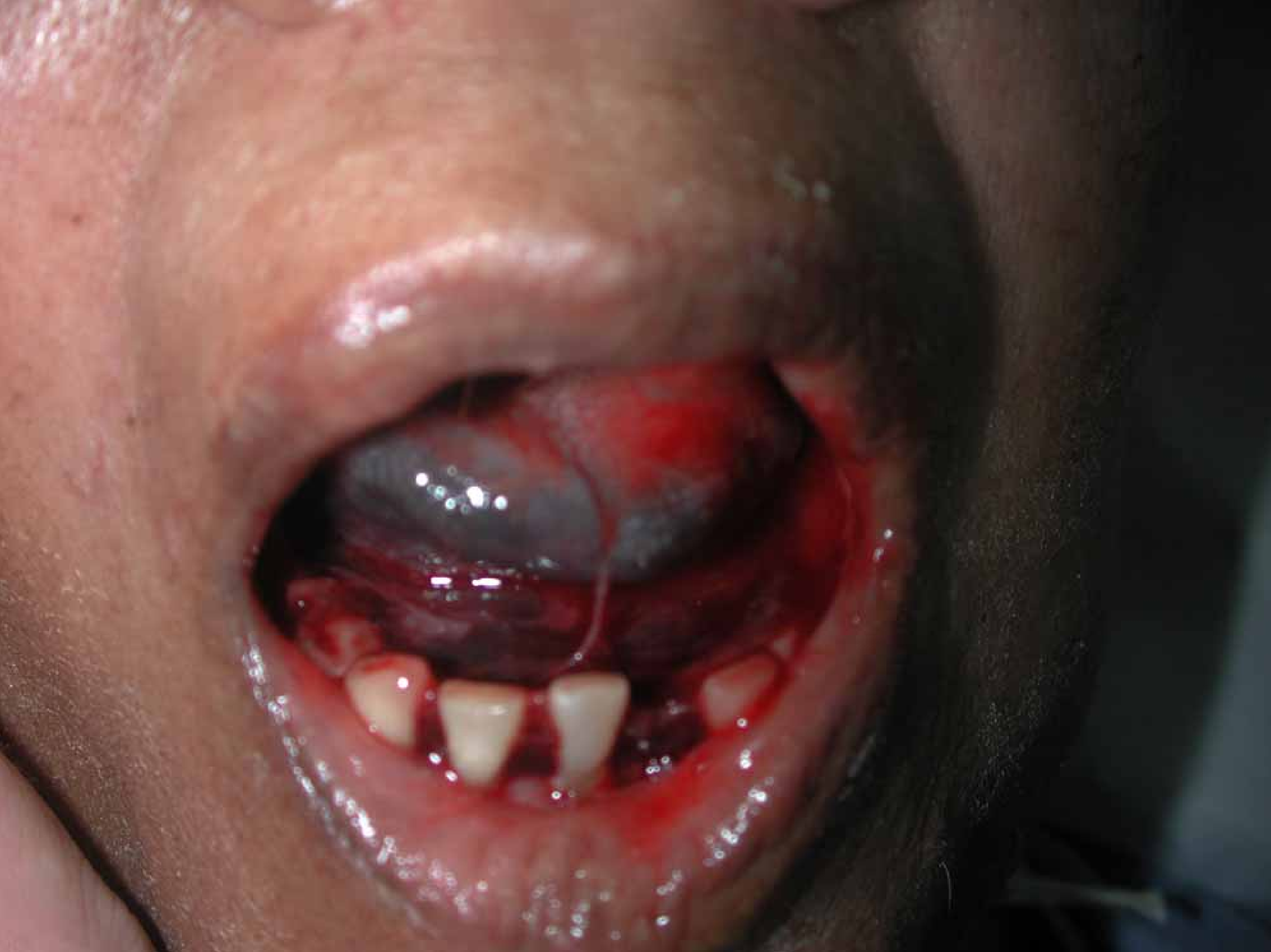
Day Hospital

- ? FOM lesion --- Biopsy 3x
- Progressive swelling submandibular, FOM, oropharynx
- Decadron, Adrenaline nebs
- Acute bleeder from biopsy site despite H202 and topical adrenaline

- PMHx:
  - HPT,CCF, AF
- Meds:
  - Digoxin, Disprin, Warfarin 5mg dly
  - Furosemide, Spirinolactone,
  - Enalapril

- <u>TBH; O/E</u>
  - SOB,Short sentences, Noisy breathing
  - Pallor Hb 7, Afebrile,
  - BP 80/50, AF 95
  - Ecchymosis submand, neck, (L) upper arm
  - Blood in mouth from biopsy sites
  - Sublingual haematoma, purple swollen tongue, oropharynx haematoma
  - Scope: purple oedematous BOT, epiglottis, lateral pharyngeal wall, SG. N VC





Acute Management

- Topical lignocaine/ NA to control bleed
- Emergency tracheostomy: bleed
- IVF (RL)
- Stat 1g Cycklocapron

Investigations

- Bloods:
  - **INR >10, PTT 124,** Fibrinogen 8
  - Hb 7, WCC 22, Plt 504
  - Urea 23, Creat 150, K 6,5
  - LFT N, but LDH 276; CK 276
  - Bloodculture (later) (-), N infective markers
- CXR: Cardiomegaly
- ECG: No Ischaemic changes (day H alleged ischaemic changes)
  - Trop I 0,08

Management

- Vit K, FFP, PRBC
- Augmentin
  - not aseptic tracheostomy
    WCC ↑
- Kayexalate, IVF (Saline)
- Stop warfarin
- Day 2 started heparine and low dose warfarin
- Physician review

Ward stay

- Hb 8,5
- INR 1,1   PTT 31
- WCC 16
- Urea 6, Creat 99, K 4.1
- Afebrile – no source of sepsis / WCC↑
- Histology: severe subepithelial hemorrhage. No malignancy
- Tube out d6

Case Presentation 2

- 30 yo F
- Strand
- Acute and progressive swelling of tongue, FOM, submandibular
- Odynophagia
- Not ill
- ? Stridor --- HHH

- PMHX:
  - DVT diagnosed Nov 2005
- Meds:
  - Warfarin 5mg daily, Panado PRN
  - OCP
- Smoke 5/d

- TBH, O/E:
  - No stridor
  - Afebrile, Stable
  - No blood or echymosis
  - Submandibular swelling – not hot, not tender
  - Sublingual haematoma, Swollen purple tongue
  - Scope: supraglottic oedema

Investigations

- INR 8.8;   PTT 148
- WCC 11.1;   Hb 8.1;   Plt 981

Management

- FFP, Vit K, observe airway
- Clexane,
- low dose warfarin (once INR↓)
- Swelling settled over few days
- INR 1.77
- Back to HHH to settle coagulation
- Educate pt

Sublingual haematoma 2° Warfarin overdosage

- Pubmed
  - SLH as presenting clinical picture of coagulopathy due to warfarin
  - 10 cases

Warfarin induced SLH

- Spontaneous bleeding into the sublingual and submaxillary spaces
- Creates a "pseudo-Ludwig's" phenomenon (Lepore
  - with elevation of the tongue and floor of mouth
  - airway compromise.
- No other signs or symptoms of coagulopathy
- Consider potentiation of coagulopathy in warfarinised pt – PT 3x N
  - e.g. alcohol

Symptoms

- Can be vague – High index of suspicion
- Progressive in nature (with acute onset)
- No trauma; 3 cases – cough few days before

Symptoms

- Sore throat = early complaint
  take seriously in any patient receiving oral anticoagulation therapy

- Swelling, Voice change, Dysphagia, Drooling, Stridor, Resp collapse

- Can have SUDDEN UAO: retropharyngeal / laryngeal bleed

Cases of Warfarin-Induced Sublingual Hematoma*

Source, y	Age of Patient, y	Site of Bleeding	PT	PTT	Medical Therapy	Airway Management
Lepore,[5] 1976	58	Sublingual	40/13	106/32	FFP, vitamin K	Endotracheal intubation (bronchoscopic)
Rosenbaum et al,[3] 1979	53	Sublingual, submandibular	55/10	...	Vitamin K	Observation, tracheotomy, died
Gooder and Henry,[7] 1980	52	Sublingual, submandibular	40/10	...	Vitamin K, prothrombin complex	Observation
	21	Sublingual, neck	3 min/14 s	...	Vitamin K, prothrombin complex	Tracheotomy
Boster and Bergin,[2] 1983	58	Submandibular, supraglottic	44/12	127/27	FFP, vitamin K	Tracheotomy
Murray and Blunnie,[9] 1983	32	Sublingual	120/30†	126/31	Not specified	Tracheotomy
Duong et al,[11] 1986	57	Sublingual	77/11	150/32	FFP, vitamin K	Cricothyrotomy
Bachman et al,[10] 1987	67	Sublingual	37/13	120/32	FFP	Cricothyrotomy
Present cases	65	Sublingual, pharyngeal	32/12	>2 min	Vitamin K	Tracheotomy
	63	Sublingual	66/11	...	FFP, vitamin K	Endotracheal intubation

Spaces

- Sublingual
  - Mucosa, genioglossus m., mandible, mylohyoid m.
- Submaxillary
  - Mylohyoid m., mandible, ant. + post. digastric mm.
- Communicate: post mylohyoid m. (submand gland / duct)

Progression

- 1 st sublingual

  = can see tonsils

- Then submaxillary
- = tongue up and back
- = odynophagia / dysphagia
- = difficult to see tonsils

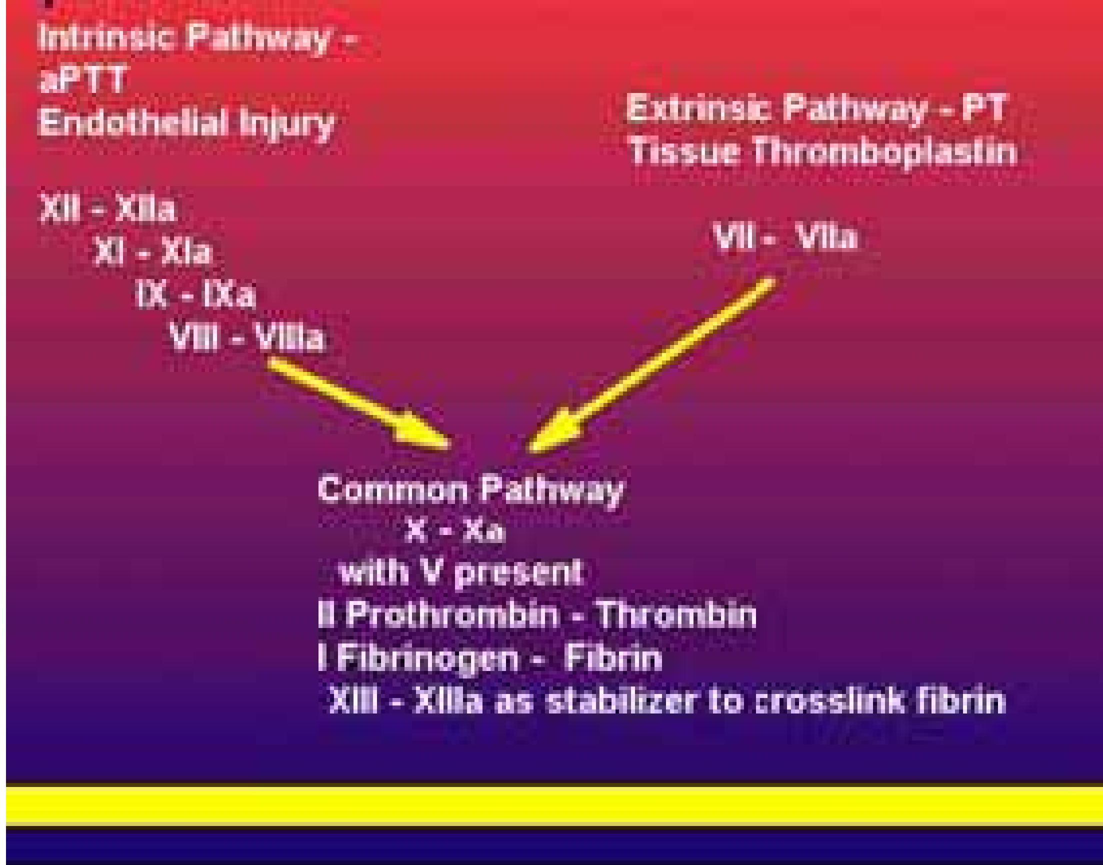
Warfarin

- COUMADIN
  - crystalline warfarin sodium

    (3-acetonylbenzyl-4-hydroxycoumarin)
  - 1945, Wisconsin
  - anticoagulant which acts by inhibiting vitamin K-dependent coagulation factors

    II, VII, IX, X
  - Effect on extrinsic and common pathway

    (and intrinsic)
  - PT, INR ↑, (also PTT)


Intrinsic Pathway -
aPTT
Endothelial Injury
Extrinsic Pathway - PT
Tissue Thromboplastin
XII - XIIa
XI - XIa
IX - IXa
VIII - VIIIa
VII - VIIa
Common Pathway
X - Xa
with V present
II Prothrombin - Thrombin
I Fibrinogen - Fibrin
XIII - XIIIa as stabilizer to crosslink fibrin

INCREASED PT/INR response if on warfarin

ENDOGENOUS FACTORS

- blood dyscrasias
- diarrhea
- hyperthyroidism
- elevated temperature
- poor nutritional state
- cancer
- hepatic disorders/ failure, hepatitis
- collagen vascular disease
- infectious hepatitis
- vitamin K deficiency
- congestive heart failure

INCREASED PT/INR response if on warfarin

- **EXOGENOUS FACTORS**

  Drug interaction e.g

  *Alcohol,

  *Aspirin,

  *Diuretics

  *Halothane,

  *Ibuprofen,

  *Ciprofloxacin,

  *Omeprazole

  *Prednisone

  ETC.!!!

Differential Dx

- Trauma (in pt on warfarin)
  - MaxFac Surgery / dental implants
- Coagulopathy

- Consider other SL / SM swelling causes
  - Ludwigs angina
  - Angioneurotic oedema
  - Vincent’s angina
  - Ranula

Coagulopathy

- **C -** Cirrhosis/Liver Disease and Coumadin
- **A** - Aspirin and other drugs NSAIDs
- **L** - Leukemia, Lupus anticoagulant
- **F** - Factor Deficiency – Hemophilia

- **D** - Disseminated Intravascular Coagulation
- **I** - Idiopathic Thrombocytopenic Purpura
- **P** - Platelet Deficiency (TTP, HUS, DIC,Heparin)
  Platelet Dysfunction (vWD)
- **S** - Scurvy: Vitamin C Deficiency

Coagulopathy (Virchow)

- 1. Abnormal bleeding from the mucus membranes such as the mouth, nose or vagina –
  suggests platelet defects or von Willebrand's disease (vWD).

- 2. Abnormal bleeding into joint spaces and **soft tissues** implies a defect in the **clotting factors.**

- 3. Purpuric lesions are usually caused by vascular wall defects

Management

- 1.Prompt control of the **airway**
  - Clinical judgement. (One author recommend early trache with reversal of coagulopathy.)
  - HCU, bedside trache pack
  - Avoid ETT: risk of bleed; failed intubation

* Resolve spontaneously: surgical drainage not advised

Management

- 2.- Reversal of the **coagulopathy**.

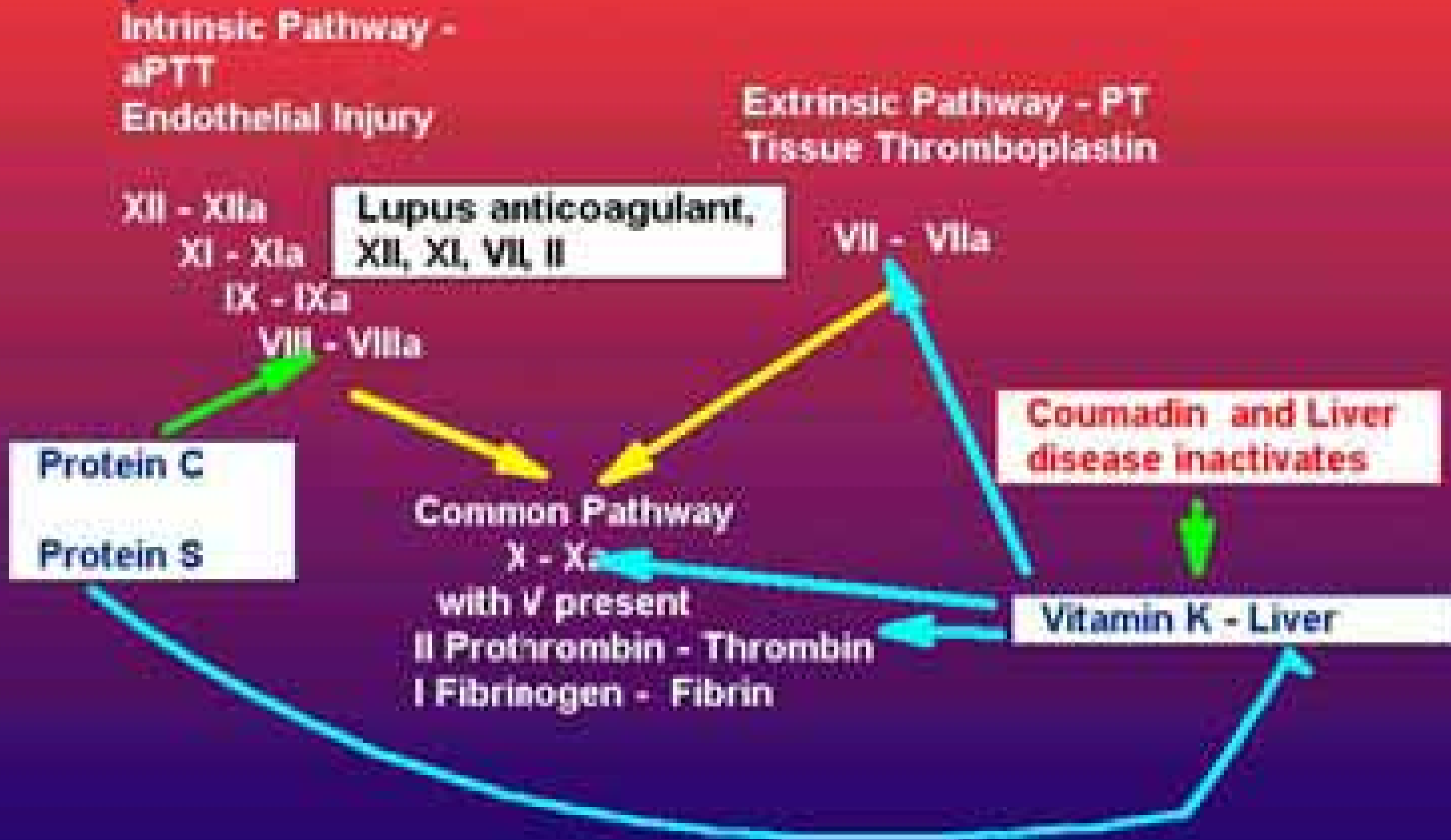
  - Stop warfarin until hemorrhage controlled (INR↓)

  - FFP (/ whole frozen blood/ Factor IX)

  - Vit K (5 – 10 mg) IV

↑Clotting factors

Vit K / FFP / whole fresh blood



Management

- 3.- Correct coagulation profile to **therapeutic** range for medical condition (INR 2 – 3). Then start warfarin --- slow

  -Heparine / Clexane BD SC until INR therapeutic

Key points

- Rare
- ENT presentation
  - without other hemorrhage
- Index of suspicion
- Rx medically
- WATCH AIRWAY +/- intervene

Literature

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  - Cohen et al, NY
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  - Michael K. Gupta,
- Crit Care Med. 1986 Sep;14(9):830-1.
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