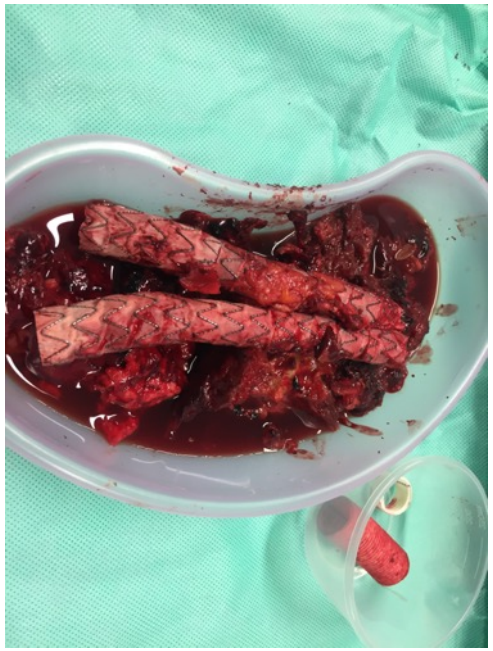
Negligence and Causation Issues in Vascular Surgery



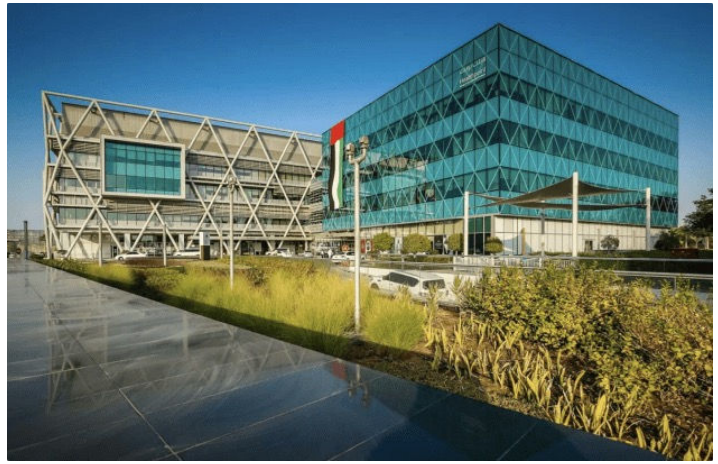
Zahid Raza

Consultant Vascular Surgeon

Healthpoint Hospital, Abu Dhabi

AAJ/PEOPIL Conference, Florence

September 2023



No declarations

My credentials

- Dundee University Medical School qualified in 1990
- Higher Surgical Training in Edinburgh
- Appointed to Royal Infirmary of Edinburgh in 2002
- Currently setting up Vascular Service in Abu Dhabi

- Medicolegal work for the past 12 years

- Have had one ‘never event’
- Two cases of medical negligence – unsuccessful
- One GMC referral - rejected

Content

- Vascular Medico-legal work and its challenges
- Negligence in Vascular Surgery
- Common Vascular Procedures and Complications
- Emergency care
- Informed consent
- Establishing causation
- Communication and Documentation
- Summary

Why vascular medico-legal work?

- **Challenging Cases:**
- Vascular medico-legal cases are often complex and challenging
- **Seeking Justice:**
- For patients and their loved ones
- **Interdisciplinary Nature:**
- Enriching and informative.
- **Cutting-Edge Medical Technology:**
- Staying up-to-date with the latest medical & Industry innovations.
- **Impact on Healthcare Practices:**
- Changing healthcare practices and standards and teaching the future generation of doctors

Why vascular medico-legal work?

- **Variety of Cases:**
- Surgical errors to misdiagnoses and informed consent issues.
- **Continuous Learning:**
- Keeps the work dynamic and engaging.
- **Helping Both Patients and Healthcare Providers:**
- identifying areas for improvement and reducing the likelihood of similar errors in the future.
- **Renumeration**

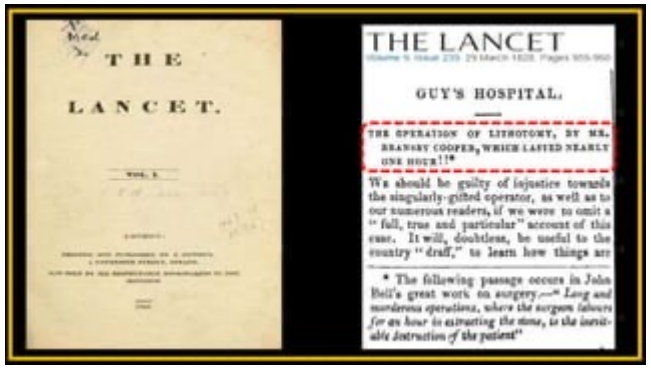
What is Vascular Negligence

'healthcare professional fails to meet the standard of care expected in treating and managing conditions related to the vascular system'

'***if medical error was a disease, it would be the third leading cause of death in the United States'***

Harvard Medical School Health Blog, 2016

First case of medical negligence - 1828


THE

LANCET.

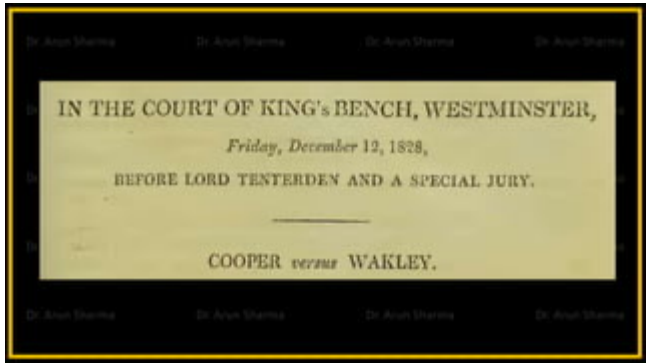
THE LANCET

GUY'S HOSPITAL.

THE OPERATION OF LITHOTOMY, BY MR. BRANSBY COOPER, WHICH LASTED NEARLY ONE HOUR!!*

We should be guilty of injustice towards the singularly-gifted operator, as well as to our numerous readers, if we were to omit a "full, true and particular" account of this case. It will, doubtless, be useful to the country "draff," to learn how things are

* The following passage occurs in John Bell's great work on surgery:—"Long and murderous operations, where the surgeon labours for an hour in extracting the stone, is the inevitable destruction of the patient"


IN THE COURT OF KING's BENCH, WESTMINSTER,

Friday, December 12, 1828,

BEFORE LORD TENTERDEN AND A SPECIAL JURY.

COOPER *versus* WAKLEY.

- 53 M married with 5 children - large bladder stone
- 18th March 1828 Guy's Hospital
- Astley Cooper's Nephew was surgeon (Bransby Cooper) – Difficult procedure 'deep perineum'
- Patient screaming for over 1 hour – many of the 200 spectators started to leave
- Wakley alleged negligence
- Cooper sued for defamation and awarded £100

What does the legal profession want from a Vascular Surgeon?

- A forensic eye to review a patient's medical records in a clear and methodical manner
- To be totally objective
- Bring clarity to medical or surgical episodes for interpretation by the legal profession.
- Ability to explain complex medical details in a simple form
- What would be the 'normal' decision making process and actions in a reasonable doctor of that grade

Types of Vascular Negligence

- Diagnostic failure
- Surgical error during vascular surgery
- Endovascular mishap
- Suboptimal Post operative care
- Follow up
- Poor informed consent

- VSQIP – Vascular M & M listed separately to other surgical specialties

The Big Three

- Diagnostic errors remain the most common, most catastrophic, and most costly of serious medical errors in malpractice claims
- nearly 75% of serious misdiagnosis-related harms are attributable to diseases in just three major categories –

- Vascular events
- Infections
- Cancers

Why is it so difficult to establish a successful negligence claim for Vascular patients?

- High standard of proof
- Patient factors are multifactorial
- There is an in built system of complications which are recognised
- Frequent difference of opinion in MDT meetings
- On the balance of probability…
- '… a reasonably competent healthcare professional in the same specialty would have provided the same care under similar circumstances…'
- Medical Community closing ranks
- Complexity of cases

Why is it so easy to establish a successful negligence claim for Vascular patients?

- Human organs have a prescribed finite life without blood
- Very detailed studies on optimal treatment of vascular patients such as carotid, aneurysmal and infrainguinal disease.
- Vascular events are catastrophic or very painful events
- Most vascular surgeons will agree on a timeline of events
- Non vascular surgeons attempting vascular intervention
- Lack of documentation/poor consent process
- Never events (approx 500/year in the UK)

Causes of litigation for Vascular Surgeons?

Commonest Allegation

- Failure to diagnose and treat 48.9%
- Complication of open surgery 31.8%
- Negligent procedure 25.2%

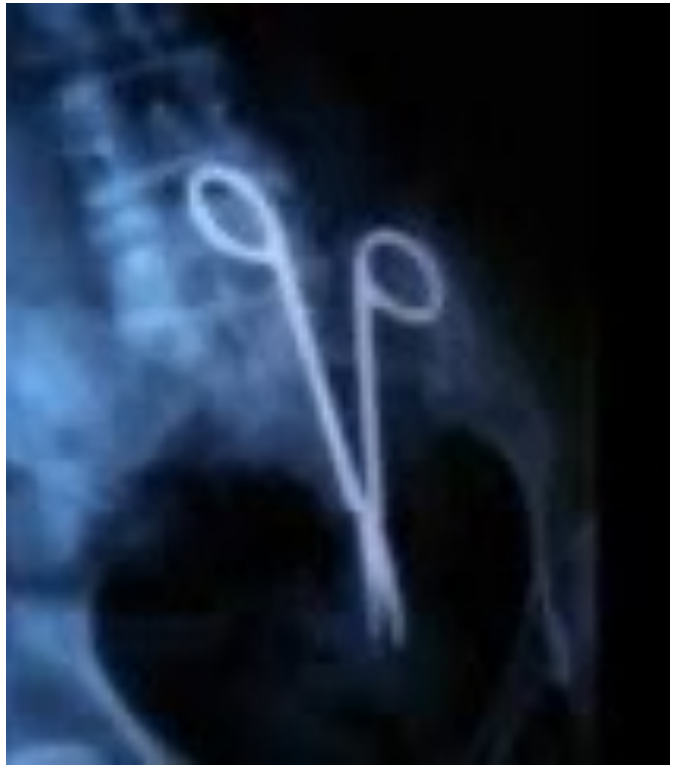
Commonest Injury

- Death - 31.85%
- Major amputation - 23.7%
- Neurovascular injury - 14.8%
- Bleeding - 5.9%

J Phair, *et al.*
Why Do Vascular Surgeons Get Sued? Analysis of Claims and Outcomes in Malpractice Litigation
Ann Vasc Surg 2018 Aug;51:25-29

Risk factors for vascular negligence

- Surgical Burn out
- On-call frequency
- Recent medical errors
- Male surgeons



I Y Soh, *et al.*
Malpractice allegations against vascular surgeons: Prevalence, risk factors, and impact on surgeon wellness
J Vasc Surg 2022;75(2):680-686.

NOTSS

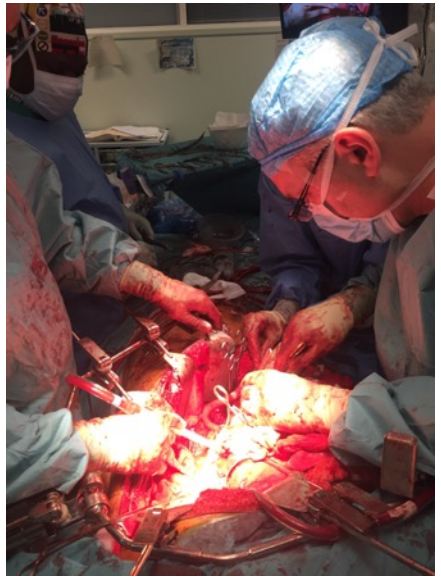
- Non Operative Technical Skills for Surgeons
- We were literally making avoidable and inexcusable errors

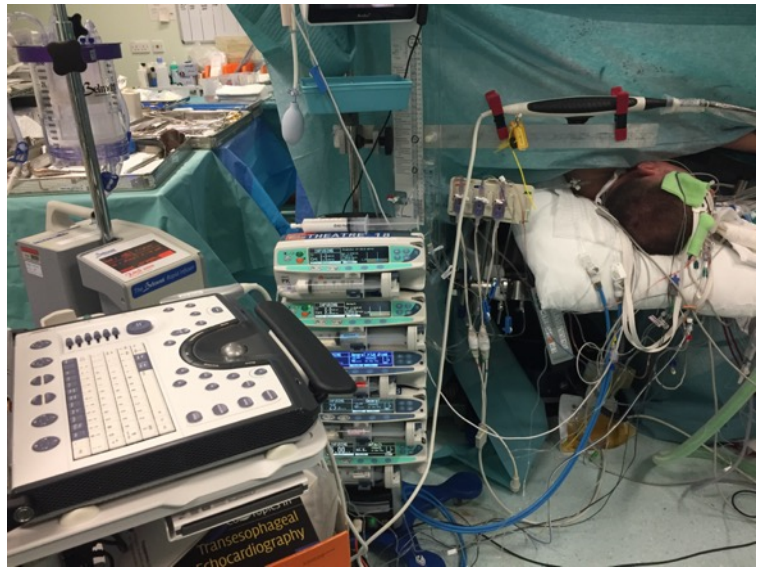
- Learning from the airline industry
- Decision Making
- Communication
- Teamwork
- Leadership
- Situational Awareness

Situational Awareness – we do it all the time

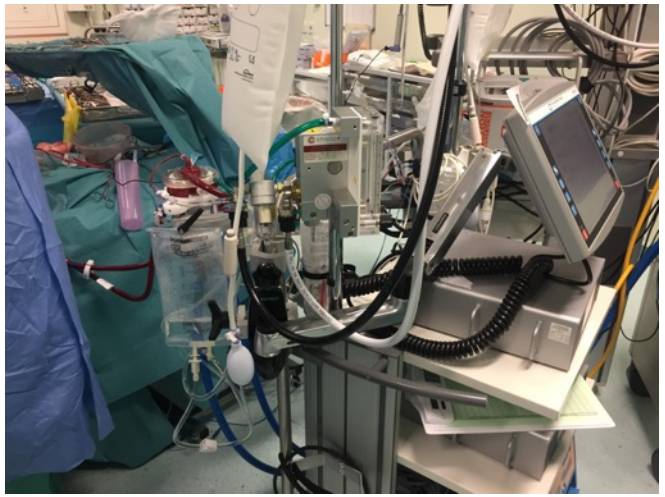
- Waking up
- Driving
- Playing sport
- Watching TV
- Talking
- Cooking and Eating
- Walking home at night

Situational Awareness



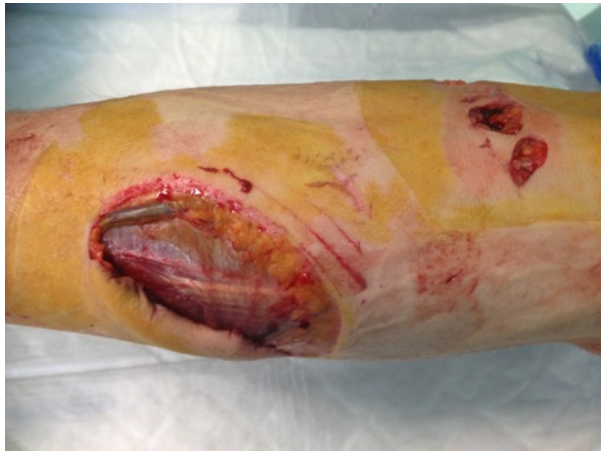


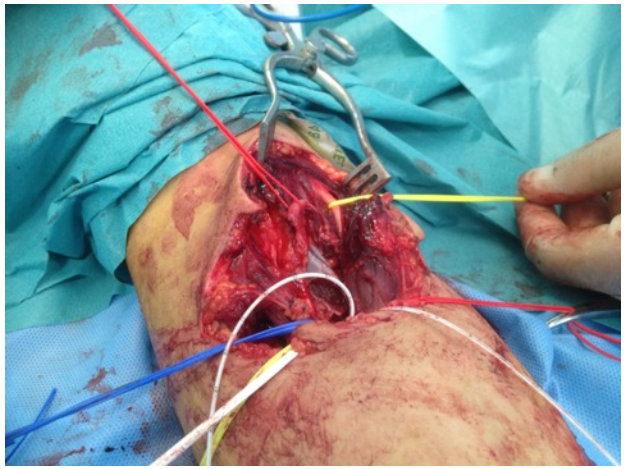
- Seeing the ‘bigger picture’
- Anaesthetic shuffle
- Speak out loud and read back information
- Aware of own limitations
- Mutual respect
- Aware of surroundings – alarms, blood loss, assistant
- The scrub nurse – ‘thinks ahead of the surgeon’
- Sterile cockpit

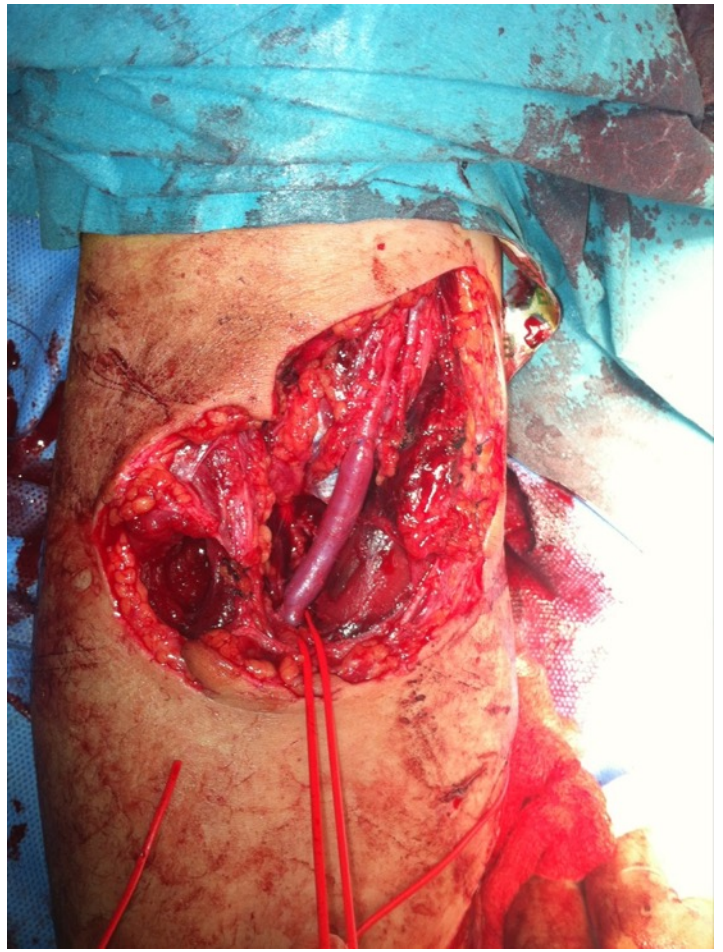


Common Vascular Procedures and their Complications

- Aortic Surgery
- Carotid Surgery
- Varicose Veins
- Vascular Access
- Vascular Trauma
- Iatrogenic Injury
- Infrainguinal Bypass



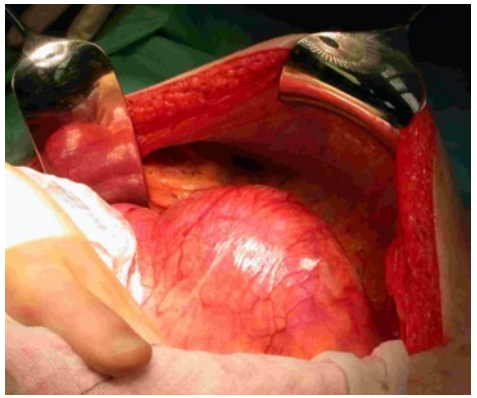


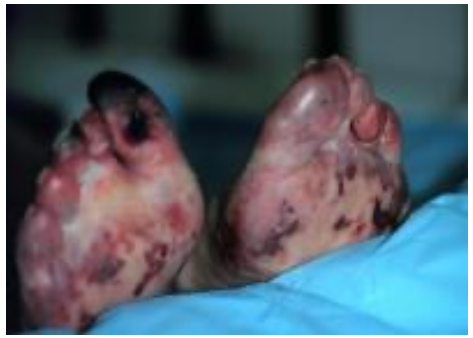


Common Vascular Procedures and their Complications

Aortic Surgery

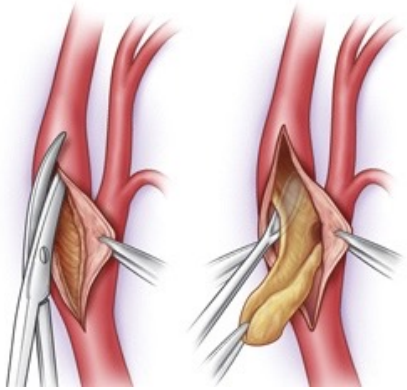
- Death
- Embolic shower to the legs
- Bowel Ischaemia

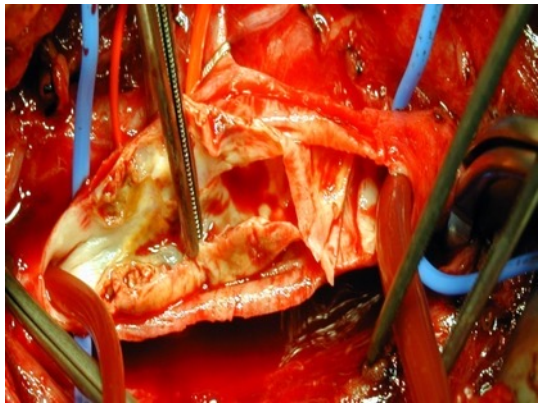




Carotid Surgery

- Stroke during or after surgery
- Death
- Nerve damage

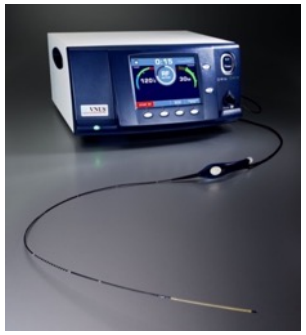


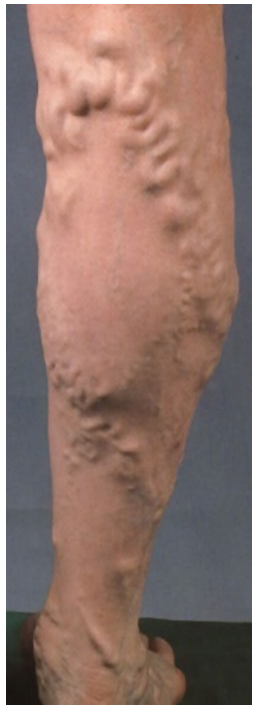


Common Vascular Procedures and their Complications

Varicose veins

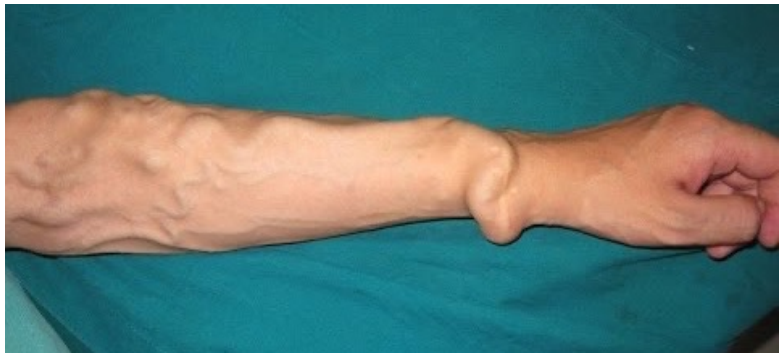
- Nerve damage
- Residual swelling
- Recurrence
- DVT





Vascular Access

- Arm Ischaemia
- Bleeding from puncture site
- Ischaemic Monomelic Neuropathy



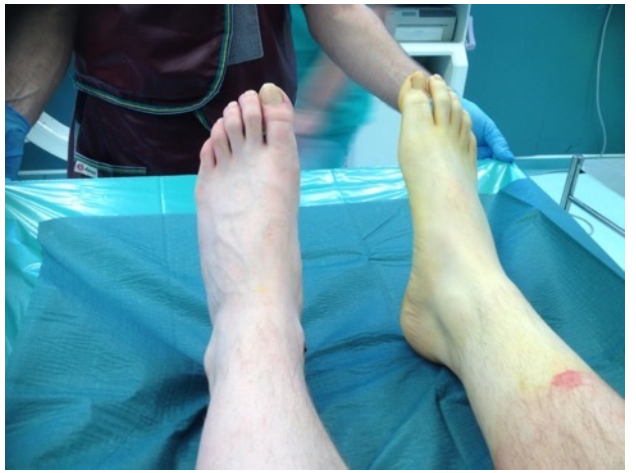
Common Vascular Procedures and their Complications

Vascular Trauma

- Poor resuscitation
- Residual ischaemic damage
- Foreign Body

Iatrogenic Injury

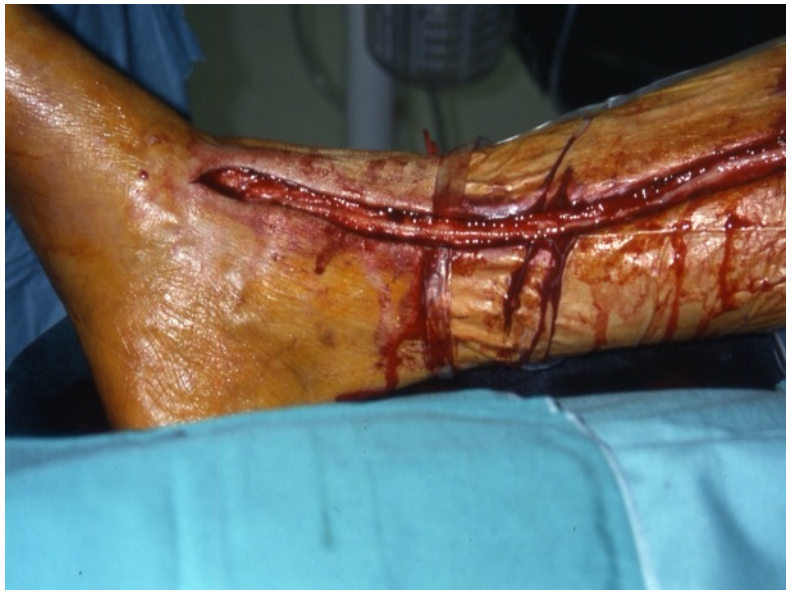
- Prolonged Hospital Stay
- Irreversible damage to organ
- Significant morbidity



Common Vascular Procedures and their Complications

Bypass Surgery

- Graft occlusion
- Infection
- Pain



Examples of Emergency Care Going Wrong

Case 1 – Scoop and Run

- 42 year old male cyclist hit by a car
- Hyperextension injury to the knee
- Ambulance arrives within 12 minutes
- Cyclist conversing but shaken
- Paramedics decide to resuscitate the cyclist and insert lines
- Bleeding profusely from the left knee
- Placed in a leg brace and taken to the hospital

Case 1 – Scoop and Run

- Time spent on resuscitation in excess of 30 minutes
- Patient becomes unresponsive in the ambulance
- BP unrecordable
- Patient dead on arrival

- So what went wrong?

Case 1 – Scoop and Run

- Delay to getting patient to a hospital facility
- Being a hero on the streets
- Lack of situational awareness regarding blood loss
- Too focused on inserting cannula and ignoring patient vitals

What happened?

- Car driver charged with the death of a cyclist
- Married with three children
- Jailed for 2 years
- Lost his job
- Lost his wife

- A very preventable death

Case 2 – The Agitated Patient

- Two men get drunk and fight in a pub.
- One is hit by a glass across the right forehead
- Fight continues on the street
- Winner leaves the pub to applause

- Ambulance called
- Isolated cut on right temple and blood ++
- Paramedics bring patient to hospital

Case 2 – The Agitated Patient

- Patient arrives in hospital A&E
- Abusive and swearing at everyone
- ATLS Doctor places him in a cubicle to keep him out of the way

- Student nurse takes blood pressure – 60/32 pulse 135 (?faulty machine)
- Patient now very agitated and confused
- Oxygen saturations not done
- Student records ‘stable findings’

Case 2 – The Agitated Patient

- Patient becomes unresponsive
- Student nurse panics and sets off emergency buzzer

- CPR initiated, O negative blood administered
- Patient confirmed dead after 40 minutes of resuscitation

- What went wrong?

Case 2 – The Agitated Patient

- Failure in handover – blood loss at the scene was significant
- Monitoring not done in ambulance as patient was agitated/abusive
- Patient treated as a ‘trouble maker and a drunk’ on admission

- Delegated the patient to the most junior person in the department
- Denial of observation recordings
- No primary survey of patient by the doctors

What happened?

- The student nurse was off with stress
- No action against ATLS doctor or any other staff

- The winner of the fight in the pub is charged with manslaughter and sentenced

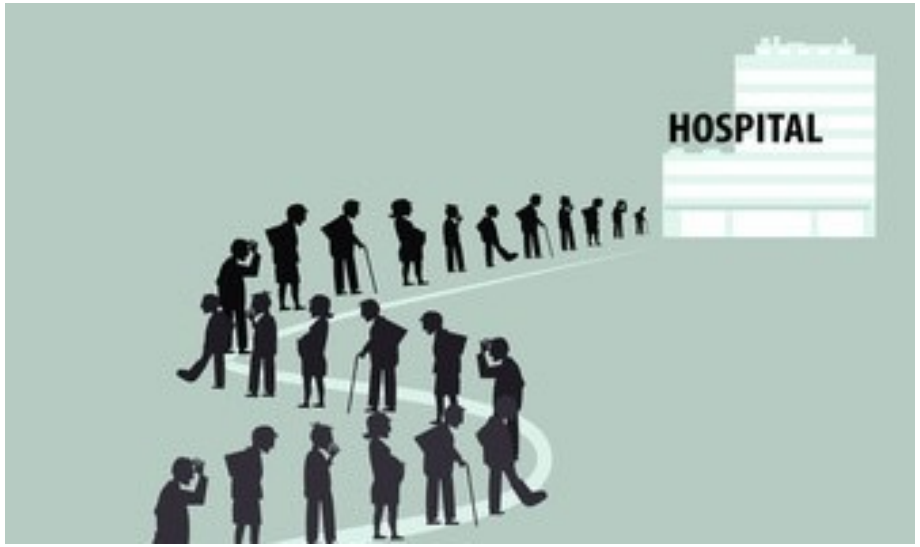
- A very preventable death

Most tragic medical mistakes have a series of events which have cascaded into the perfect storm resulting in significant harm or death

Consent

Challenges of informed consent

- One stop clinics
- Common waiting list
- Overwhelm and information overload
- Threshold for capacity
- Video of consent process
- McCulloch v Forth Valley HB - Professional Practice Test
- Montgomery ruling



The Consent Process

- (1) describing the proposed intervention,
- (2) emphasizing the patient's role in decision-making,
- (3) discussing alternatives to the proposed intervention,
- (4) discussing the risks of the proposed intervention

- The Montgomery Ruling (2015)

*‘Doctors must provide information about all **material** risks; they must disclose any risk to which a reasonable person in the patient's position would attach significance’*

Causation in Vascular Surgery

Proximate Cause (Legal Cause):

whether the defendant's actions were a legally significant cause of the harm.

Factual Cause (Actual Cause):

examines whether the harm would have occurred "but for" the defendant's actions.

Vascular Causation

- Sometimes straight forward
- Other times, extremely difficult to prove ‘but for’ the defendants action
- Proving causation in medical negligence cases often requires expert testimony from medical professionals
- Daubert standard – Expert witness testimony is based on valid science
- *Novus actus interveniens* – breaking the chain of causation

Daubert v. Merrell Dow Pharmaceuticals (1993)

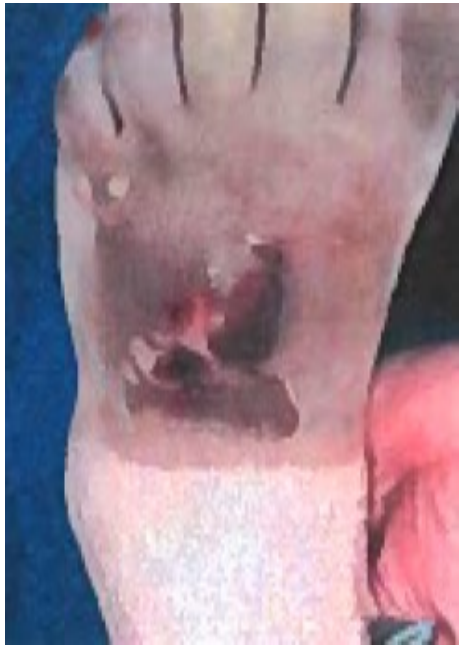
Case 1 - Over anticoagulation

- Patient has a lower limb bypass procedure and commenced on anticoagulation
- Incorrect (excess) dose of warfarin causes bleeding in the leg
- A large haematoma causes the graft to occlude
- Patient taken to theatre but graft not salvageable
- Results in **above** knee amputation

Burden of Proof

- If warfarin overdose had not ocurred, no haematoma, no graft occlusion and therefore no amputation
- However, the patient is a heavy smoker, diabetic, high cholesterol, hypertensive and obese. This would also contribute to the graft occluding in 2 or 3 years (normal patency is 80% at 5 years)
- The life expectancy of this patient is also significantly reduced
- If the graft occludes at 2 or 3 years, then the patient would, on the balance of probability, would have a **below** knee amputation

Case 2 - Holiday in the Andes



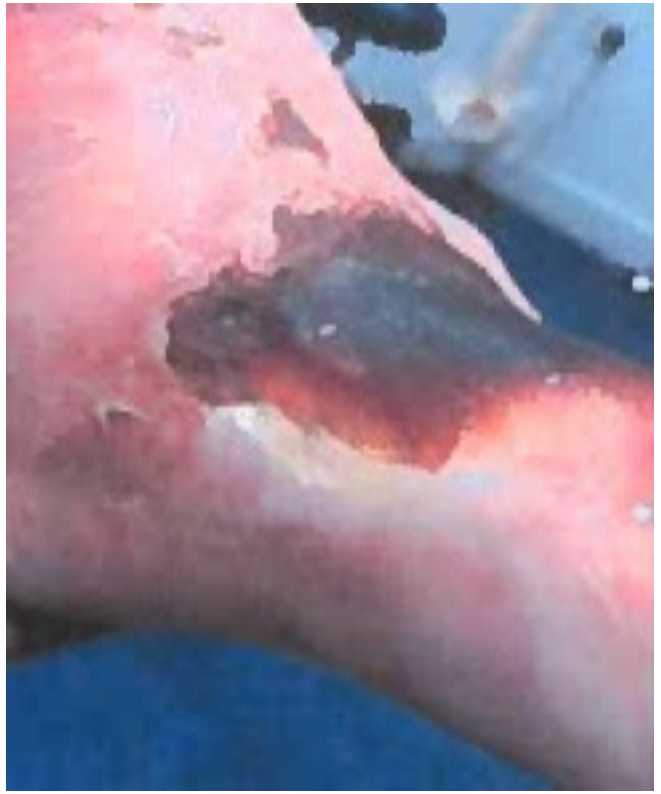
- 48 year old lady – inversion injury to left ankle
- Seeks medical advice – ankle sprain
- 3 days later flies back to UK

- Unable to move her toes – sees GP, given analgesia and relaxant
- Worsening pain and numbness and discolouration (Dx as bruising)
- Established necrosis around the foot and leg

Holiday in the Andes

- Worsening pain, feeling unwell, unable to sleep
- Necrosis worsening - ? Leishmaniasis
- Referred to dermatologist – Sent to Vascular Surgeon
- Non salvageable foot – Below knee amputation

- 3 months from injury to amputation

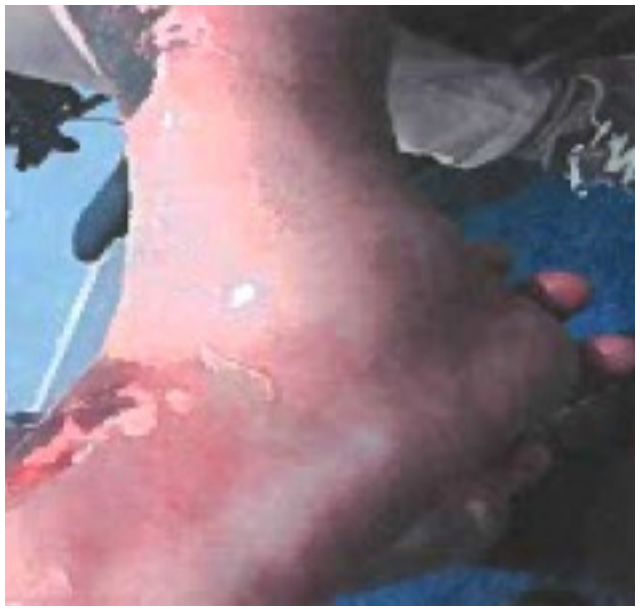


Discussion

- Was the ankle injury in isolation or the initial ischaemic event?
- Was there a delay in diagnosing an ischaemic foot?
- Was there an opportunity when the leg could be saved?

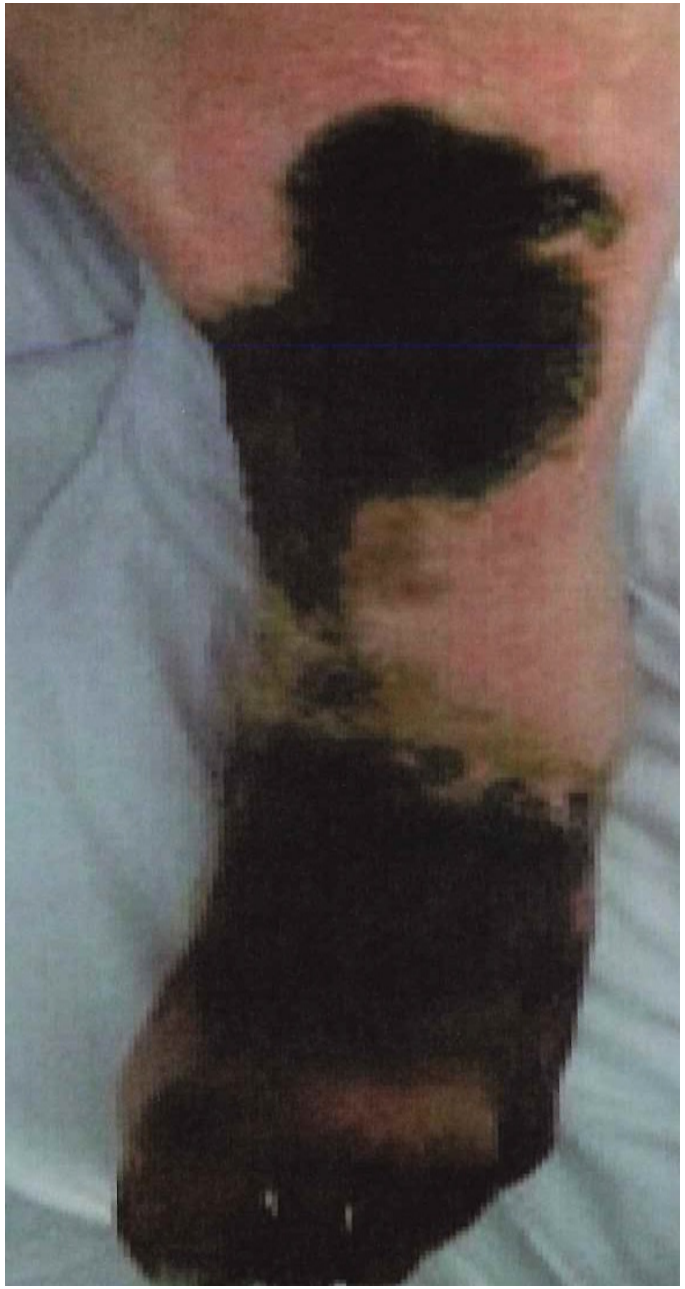
What can be established?

- The foot went numb and lifeless after the ankle injury
- Worsening pain with circumferential necrosis
- Discolouration was not bruising but profound ischaemia
- All the images show the foot in plantar-flexion
- Leishmaniasis was the incorrect diagnosis
- Main diagnosis was an acutely ischaemic leg



Pattern of Causation

- High altitude, polycythaemic, dehydration predisposes to an embolus or thrombus in the leg
- This causes inversion injury of the ankle
- Foot is profoundly ischaemic by the time patient returns to UK
- Numbness, pain and discolouration is due to ischaemia
- Unsalvageable situation from the onset
- Late diagnosis and referral to vascular delayed



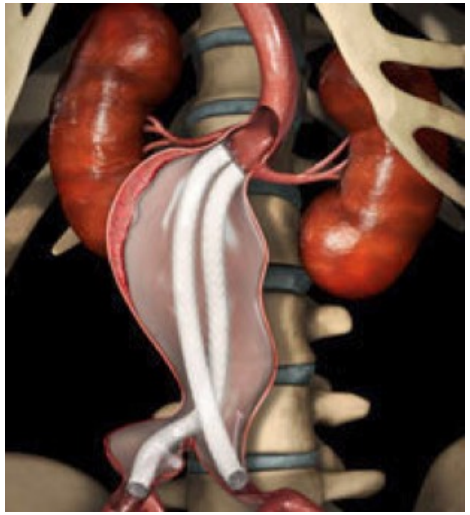
What happened?

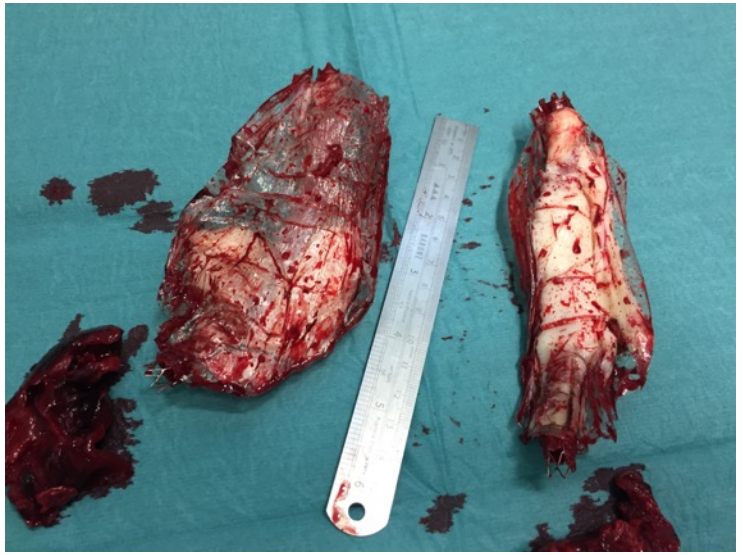
- High altitude and dehydration with polycythaemia gives rise to a thrombotic episode to the leg
- Causes the patient to injure their ankle
- The time patient comes back to UK, irreversible damage to the leg
- Delay in diagnoses of an ischaemic leg
- Patient suffered ischaemic pain for 3 months

- Irrespective of an earlier diagnosis, the leg would still have had the same outcome - Amputation

Causation not pursued by the legal profession

- Aortic stent grafts
- Complex cases
- Going against IFU
- Delayed complications
- Asymptomatic complications





Communication and Documentation

Communication & Documentation

- Doctors need to communicate with:
  - Patients
  - Relatives
  - Colleagues
  - Police/Lawyers
  - Management

- **At least 80% of all NHS complaints have poor communication as a contributing factor**

Pincock S.
Poor communication lies at heart of NHS complaints, says ombudsman.
BMJ:2004; 328(430): 10

Things not to say/do

- ‘OK’ after each sentence
- Can I touch you please
- Being alone in challenging situations - chaperone
- Not summarising at the end of your consultation
- Avoiding Duty of Candor
- Equality and Diversity
  - Personal judgements
  - Assume Marriage
  - Gender bias
- Alcohol
- Divorce

Documentation

- Reduces negligence claims
- Is a legal document and integral part of patient care
- Avoids memory gaps
- Must be legible
- Contains important negatives
- Record of informed consent
- Correct use of EPR
- Avoid copying and pasting from previous notes
- Missing or suppressed documentation/images

Summary

Avoiding vascular negligence

- Avoid delay in diagnosis/treatment
- Consent
- Communication & Documentation
- Better training

V Hansrani, *et al.*
Clinical Negligence Claims Against Vascular Surgery in the United Kingdom: An Observational Study.
Ann Vasc Surg 2021 Jan;70:549-554.

What should the legal profession consider…

- A clear instruction letter
- Paginated records
- A pre selection briefing - is the case is worth pursuing?
- The completeness of records should be questioned – especially Imaging
- Realistic time scales for reports
- Careful selection of your Vascular Surgeon – Experienced and knowing when not to operate
- The ‘Granny Test’
- Question the integrity of treatment given to emergency victims

Conclusion

- Vascular negligence is challenging and continues to rise
- Establishing vascular causation can be complex due to the multifactorial nature of vascular patients
- Suboptimal communication, consent and documentation is common amongst doctors

Doctors and legal experts: a team for health and justice

Thank you