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# THE COMPLICATIONS OF DIABETIC ISCHAEMIA

Mark Welch Consultant Vascular Surgeon MIMS Nurse Workshop, April 29, 2015

### MailOnline



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#### Gary Mabbutt left with 30inch scar after five hour operation to save his leg when his diabetes caused clogged artery

- Spurs legend woke up in middle of the night to find his leg was cold
- Mabbutt diagnosed with diabetes at 17 but complications had developed
- He required the main artery to be replaced and almost lost his left leg
- The ex-Spurs star wants to raise awareness of dangers relating to diabetes

By JACK CRONE FOR MAILONLINE

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Gary Mabbutt has spoken for the first time about how he was left with a 30 inch scar following a five hour operation to save his leg.

The ex-Tottenham and England star, 53, was rushed to hospital after waking up at 1am to find that the leg had gone cold back in 2013.

Mabbutt's diabetes had led to a clogged artery in the limb and doctors warned him it was 'touch and go' on whether it would have to be amputated.



Gary Mabbutt has been left with a 30inch scar on his left leg after his diabetes caused an artery to be clogged

He was treated at King's College Hospital in south east London, undergoing an emergency five-hour operation.

Surgeons were required to replace the main artery in his left leg with a vein and needed 112 staples to seal the horrific wound.

Mabbutt, who was diagnosed with Type 1 diabetes at 17, will not be able to play football again, leaving his dream of becoming a manager in tatters.

As he is unable to train with players on the pitch, he has been forced to turn down roles in coaching.





Surgeons were required to replace the main artery in his left leg with a vein and needed 112 staples to seal it

## AVENUES OF ASSESSMENT & REFERRAL

- General Practitioner
- GP Practice Nurse
- Podiatrist

- Other Hospital Specialist
- Emergency Department

#### PURPOSE OF SPECIALIST REFERRAL

To obtain definitive diagnosis

 To determine appropriate management

To ensure quality opinion for patient and GP

#### WHO TO REFER?

- New onset of significant symptoms
- Progression of symptoms
- Diagnostic doubt
- Patient anxiety
- Abnormal clinical signs
  - Foot lesions
  - Poor Doppler pressures

#### MODE OF INITIAL ASSESSMENT

History

Examination

Hand held Doppler ultrasound

#### ISCHAEMIA SEVERITY?

- Degree of disability
- Quality of life
- Worrying clinical signs
- Poor Doppler pressure / ABPI

#### MANAGEMENT

Non – Interventional

Interventional

 REMEMBER: 3 – 4 x RISK OF DEATH COMPARED WITH GENERAL POPULATION

## NON INTERVENTIONAL MANAGEMENT

Counsel patient

Correct risk factors

Treat symptoms

#### CORRECT RISK FACTORS

- Stop smoking
- Diet
- Aggressive BP control
- Statins

Better control of diabetes

#### ANTI-PLATELET AGENTS

Aspirin

Clopidogrel

#### EXERCISE

 STRUCTURED EXERCISE PROGRAMMES

#### SYMPTOMATIC TREATMENT

- Drugs
  - Peripheral vasodilators (NAFTIDOFURYL)

Invasive intervention

#### INTERVENTIONAL MANAGEMENT

Disabling claudication

- Critical ischaemia
  - REST PAIN
  - ULCERATION
  - GANGRENE

#### WHERE IS THE DISEASE?

Colourflow DUPLEX Ultrasound

Magnetic resonance angiography

 DETERMINES ANGIOPLASTY SUITABILITY

#### CRITICAL LIMB ISCHAEMIA

- Rest pain
- Ulceration
- Gangrene

Infection













#### CRITICAL LIMB ISCHAEMIA

Higher incidence in diabetics

Incidence increasing

Large financial burden

Aggressive policy reduces amputation rate

## CRITICAL ISCHAEMIA IN THE DIABETIC

Neuropathy

Ischaemia

Infection

## MANAGEMENT OF CRITICAL ISCHAEMIA IN DIABETES (1)

- Drainage of abscesses
- Digital / forefoot amputation
- Debridement

- Antibiotics
- Glycaemic control

## MANAGEMENT OF CRITICAL ISCHAEMIA IN DIABETICS (2)

Aggressive Revascularisation

#### REVASCULARISATION

- Endovascular
  - Balloon angioplasty (DEB)
  - Stents
  - Better for shorter lesions
  - More durable patency in iliac arteries

Surgery

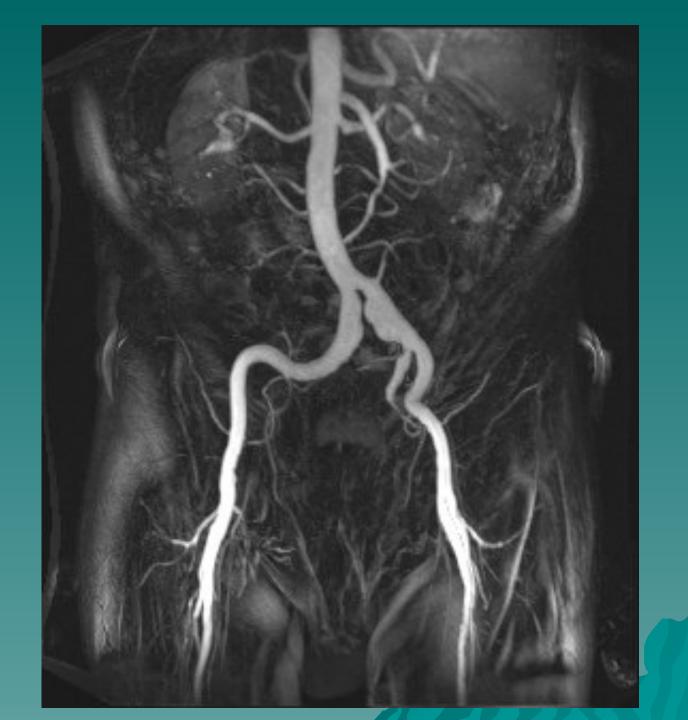
#### THE FUTURE FOR TREATMENT

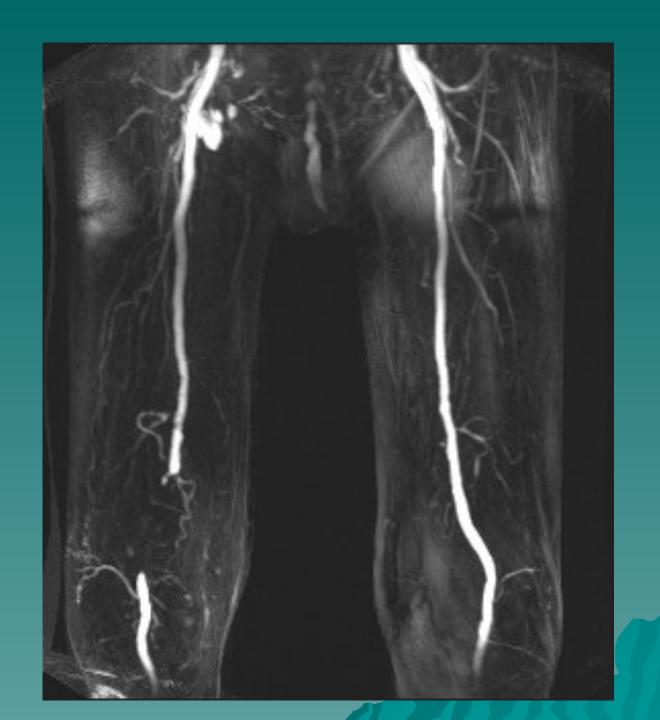
Drugs

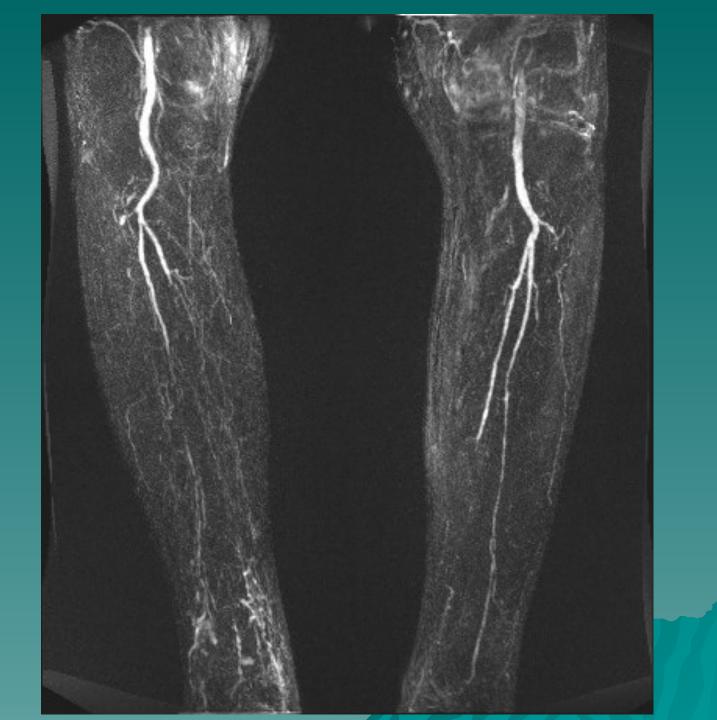
- Improved angioplasty balloon & stent technology
- Stent grafts

#### CASE 1

- WL; 81 male
- Admitted from clinic MDGH; dry gangrene right 2<sup>nd</sup> & 3<sup>rd</sup> toes
- Type 2 diabetes
- No pulses below CFA; duplex shows SFA occlusion



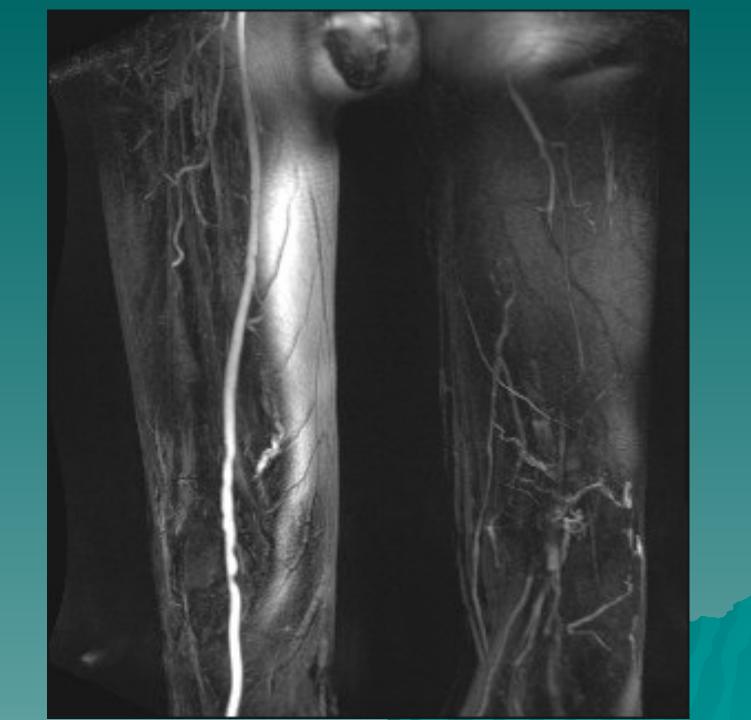


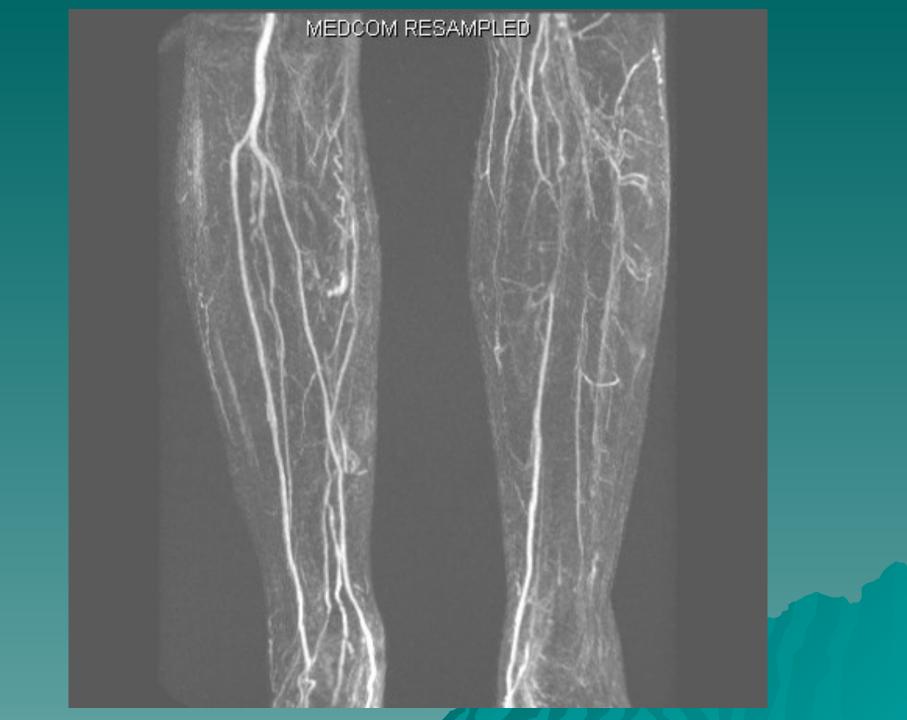


#### CASE 2

- IH; 59 male
- Admitted from A&E with 2 weeks worsening rest pain & ulceration toes left foot, esp big toe
- Type 2 diabetes; smoker; prev CVA
- Palpable CFA pulse; duplex showed occluded SFA, pop & tibials

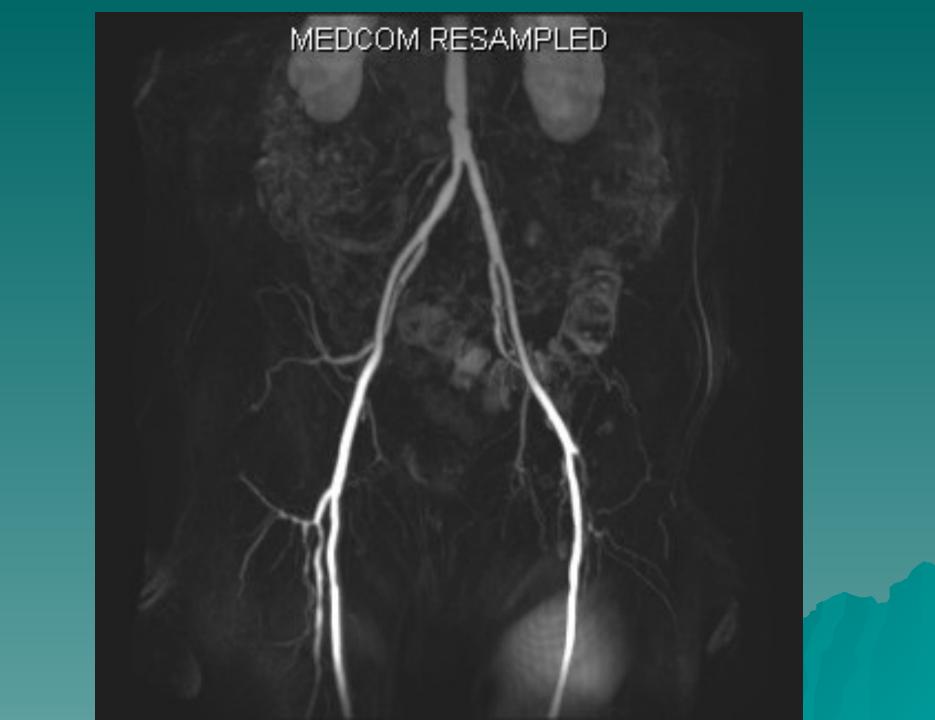






#### CASE 3

- JK; 79 male
- Admitted from A&E with 3 weeks rest pain left little toe; long standing claudication
- Type 2 diabetes
- Blue little toe; palpable groin pulse; duplex showed distal disease







#### CASE 4

- SB; 56 female
- Referred from orthopaedics MDGH
- Diabetic foot ulceration
- Type 2 diabetes

## University Hospital of South Manchester NHS NHS Foundation Trust



Consent Level B: Medical Teaching

## University Hospital of South Manchester NHS Foundation Trust



Consent Level B: Medical Teaching

## University Hospital of South Manchester NHS Foundation Trust

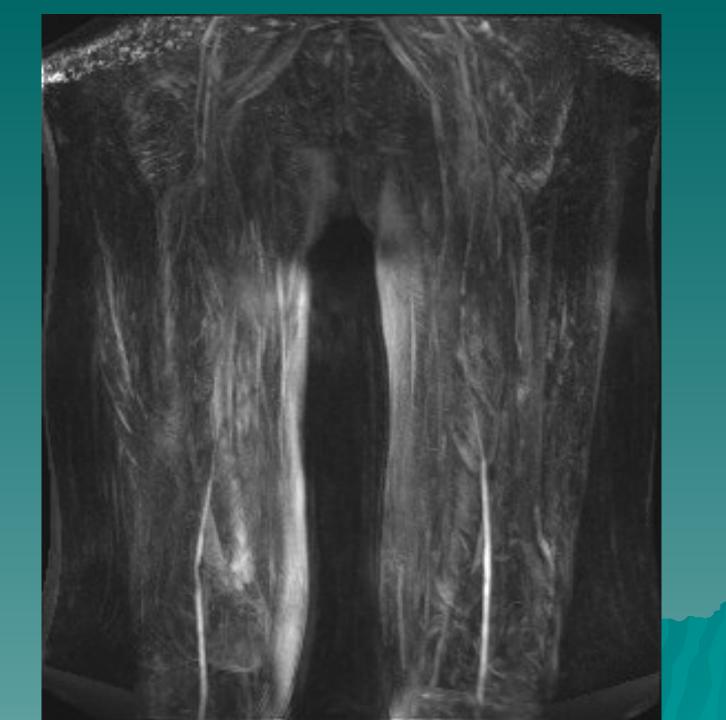


Consent Level A: Medical Records Only

#### CASE 5

- CA; 81 male
- Admitted from clinic; gangrenous ulceration right foot
- Type 2 diabetes
- No pulses; multisegment disease on duplex







#### SUMMARY

- Thorough clinical assessment
- Strict risk factor management
- Strict control of diabetes
- Conservative treatment of claudicants
- Urgent referral for critical ischaemia

# URGENT REFERRAL OF DIABETICS TO VASCULAR SURGERY

#### Criteria:

- Non healing ulcer / absent pedal pulses
- Pain at rest
- Gangrene

#### HOW TO REFER

Phone vascular registrar on call

- Fax Vascular Department
  - -0161 291 6644

#### THE FUTURE FOR ASSESSMENT

- Joint clinics
  - DIABETOLOGIST
  - VASCULAR SURGEON

Simplify referral pathways

### THE IDEAL UNIT

- Diabetologist
- Vascular Surgeon
- Podiatrist
- Orthopaedic surgeon
- Plastic surgeon