

***Rhizobium radiobacter* wound infection – fact, factitious or just plain unlucky?**

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The Case

- 41 year old male
- Diagnosed with type 1 diabetes aged 23
- HbA1c 9.4% (79 mmol/mol)
- BP 106/64 mmHg
Absent monofilament perception
- BMI 20.7 Kg/m²
VPT L/>49volts R/>49volts
- Retinopathy
Foot pulses palpable
- Smoked 15-20 a day
ABPI L/1.33 R/1.32

The Case

- Ramipril 5 mg
- Simvastatin 40 mgs
- Esomeprazole 40 mgs
- Amitriptyline 25 mgs
- Aspirin 75 mgs
- Fluoxetine 40 mgs
- Indapamide 2.5 mgs
- Insulin aspart 8 - 10 -
- Insulin glargine 18 - - 14

The Case

- Presented in Feb 08
- Trauma fracture 2nd proximal phalanx
- No open ulceration
- Foot remained swollen

Treatment

- Off loading
- Orthopaedic referral



April 2008

- April 08 toe ulcerates
- Spreading infection
- Admitted

Treatment

- Amputation partial
primary closure
- Treated in TCC
- IV antibiotics
- Wound healed



May 2008

- Emergency admission for cellulitis

Treatment

- IV antibiotics
- Back slab as inpatient
- TCC – outpatient
- Reviewed weekly



August 2008

- Readmitted with a nail in the apex of his hallux
- Patient had been laying a carpet whilst in a TCC
- Osteomyelitis requiring amputation





Our Vision
To provide every patient
with the care and support

Norfolk and Norwich University Hospitals **NHS**



Treatment Progresses

- Toe healed with offloading and long term antibiotics
- He then presented with more pain
- This was surgically removed



Progress?

- His foot continued to deteriorate and he elected for a BKA
- However, as his stump was healing, he was readmitted feeling unwell
- Blood cultures grow *Rhizobium radiobacter*



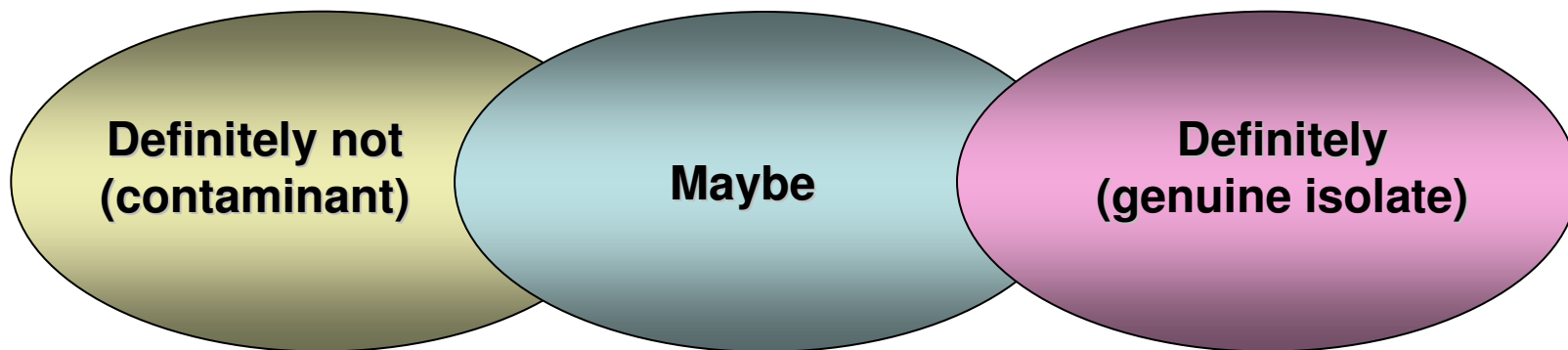
Rhizobium radiobacter

- *Rhizobium radiobacter* (prior to 2001 known as *Agrobacterium* sp.) is a well known soil organism
- It is worldwide plant pathogen that causes neoplastic growth in many plant species
- Only 50 or so case reports of this organism in humans – most of these are due to vascular catheters in immunocompromised patients, e.g. central lines / PD catheters / devices



Rhizobium radiobacter

- This is an aerobic, non-spore forming, oxidase-positive, gram-negative, opportunistic pathogen with low virulence
- In order to survive it must have an 'ecological niche' e.g. in the immunocompromised host, or in a transcutaneous indwelling catheter



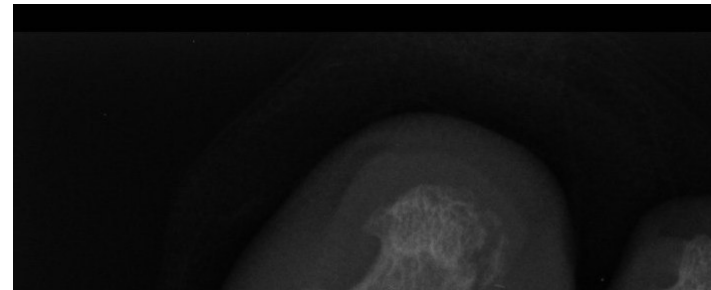
The hierarchy of probability

Back to the Case

- He was treated with intravenous antibiotics and then eventually had an above knee amputation
- He had not been seen in the foot clinic for 4 months
- He was being investigated for gastroparesis

Stop The Press.....

- Readmitted on 24/8/10 – with a ‘1 week history of an ulcer on his 1st toe’



Amputation of first toe on the right foot on 6th September



Rhizobium radiobacter

- In the case we presented we have a man with multiple successive wounds in the same foot who eventually grew a very unusual soil organism

The FACT

- As one wound improved, the next appeared – often inexplicably

FACTITIOUS?

- Eventually he grew an unusual organism in a blood culture – prior to an AKA

Was he just **UNLUCKY?**



Thank you for your attention

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