Management of Radicular Pain

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Management of Radicular Pain

A. Background

B. Epidemiology

C. Diagnosis

D. Treatment

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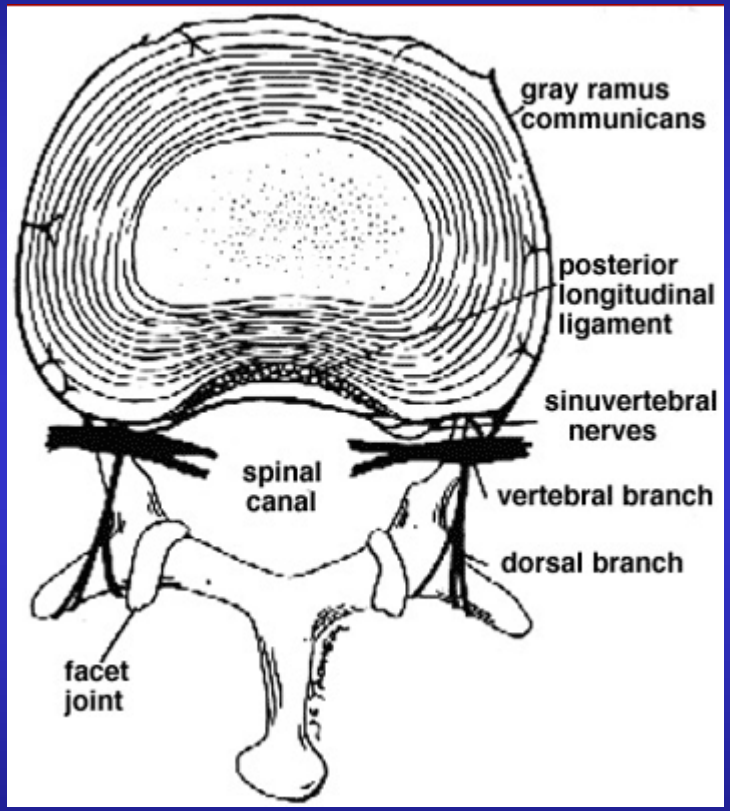
A. Background

- Names and concepts
  - Radicular pain
  - Radiculopathy
- Structures that can produce radicular Sx
  - Sinu-vertebral nerve
  - Nerve root
- Mechanisms of pain
  - Direct toxic effect of disc material
  - Chemical substances



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B. Epidemiology

- Occurs in 3-5% of the population
  - More frequent in males in their 40's
  - More frequent in females in their 50's
- In sporting population
  - More frequent in sports that combine spinal flexion/extension with rotation
  - Fast bowlers, gymnasts, dancers, RU backrowers, golfers, weightlifters, baseball pitchers

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C. Diagnosis

- Radicular pain is only a descriptive symptom
- Diagnosis is made on the usual basis of
  - History
  - Clinical examination
  - Appropriate investigations (when required)

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History

- Acute LBP radiating to buttock / lower limb
- Worse with flexion, sneezing, coughing. Sitting worse than standing
- Some pointers
  - Referred pain from L1-3 does not reach the knee
  - Unusual Symptoms (weight loss, fever, chills) point to something else
  - Beware of *cauda equina*: surgical emergency

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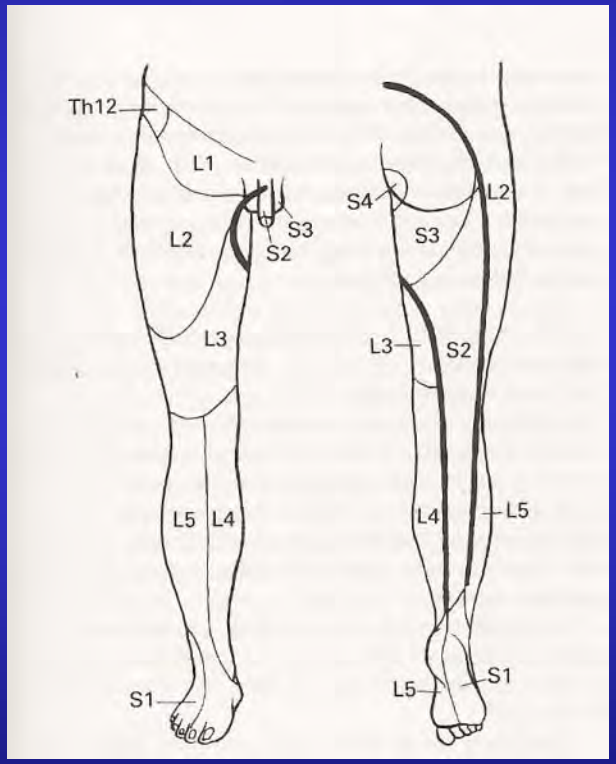
Neurological Examination

- Sensation
  - Subjective
  - Objective (light touch, pinprick)
- Dermatomal distribution is a poor indicator of the level of pathology (Albert et al. 2010)



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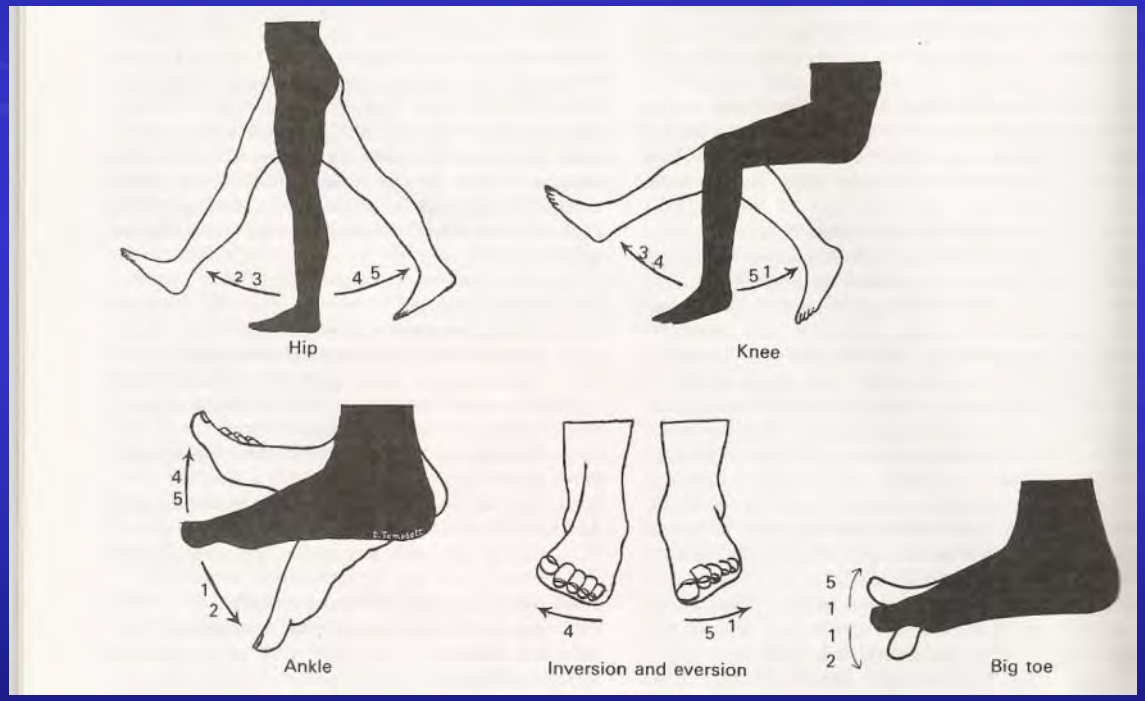
Neurological Examination

- Power: Identify what levels are deficient



Segmental motor innervation of the lower limb

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Neurological Examination

- Reflexes
  - Patellar tendon (knee jerk)
    - L2/3/4
  - Ankle tap (ankle jerk)
    - S1

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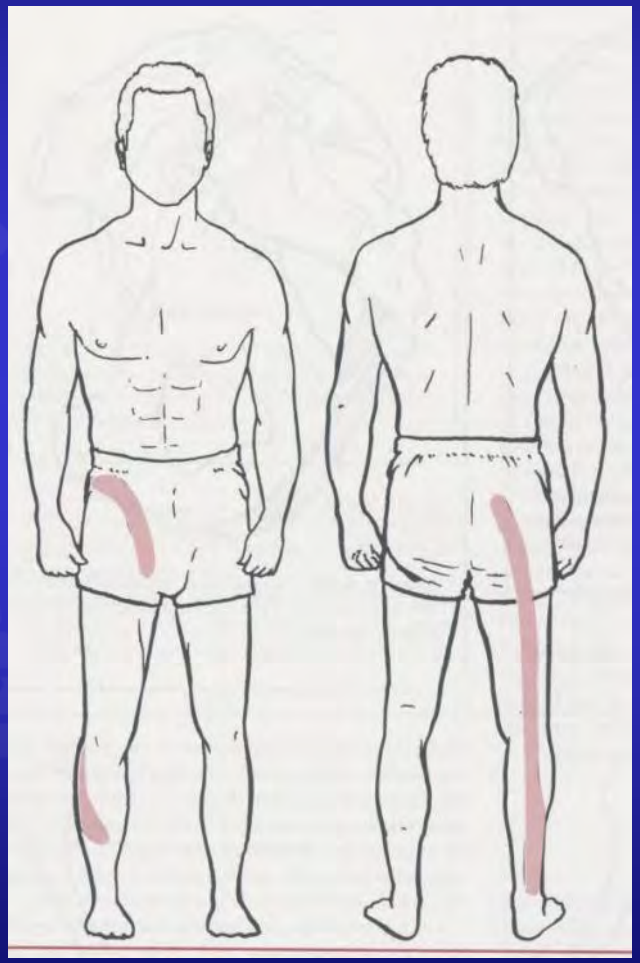
Diferential diagnosis

- Disc protrusion / extrusion
  (nerve root compression)
- Hip pathology
  (L1-2 dermatome distribution)
- Trochanteric bursitis
  (buttock / thigh pain)
- SIJ incompetence
  (pseudosciatica)
- Facet joint pain
  (usually no leg pain)



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Investigations

- To confirm or exclude a specific diagnosis
- X-ray: to exclude organic bone pathology
- CT scan: good to assess bone and disc hernias
- MRI: best modality to assess soft tissues
- Caution: treat the patient, not the picture

35% of normal 35 y.o. females show some form of “pathology” on MRI

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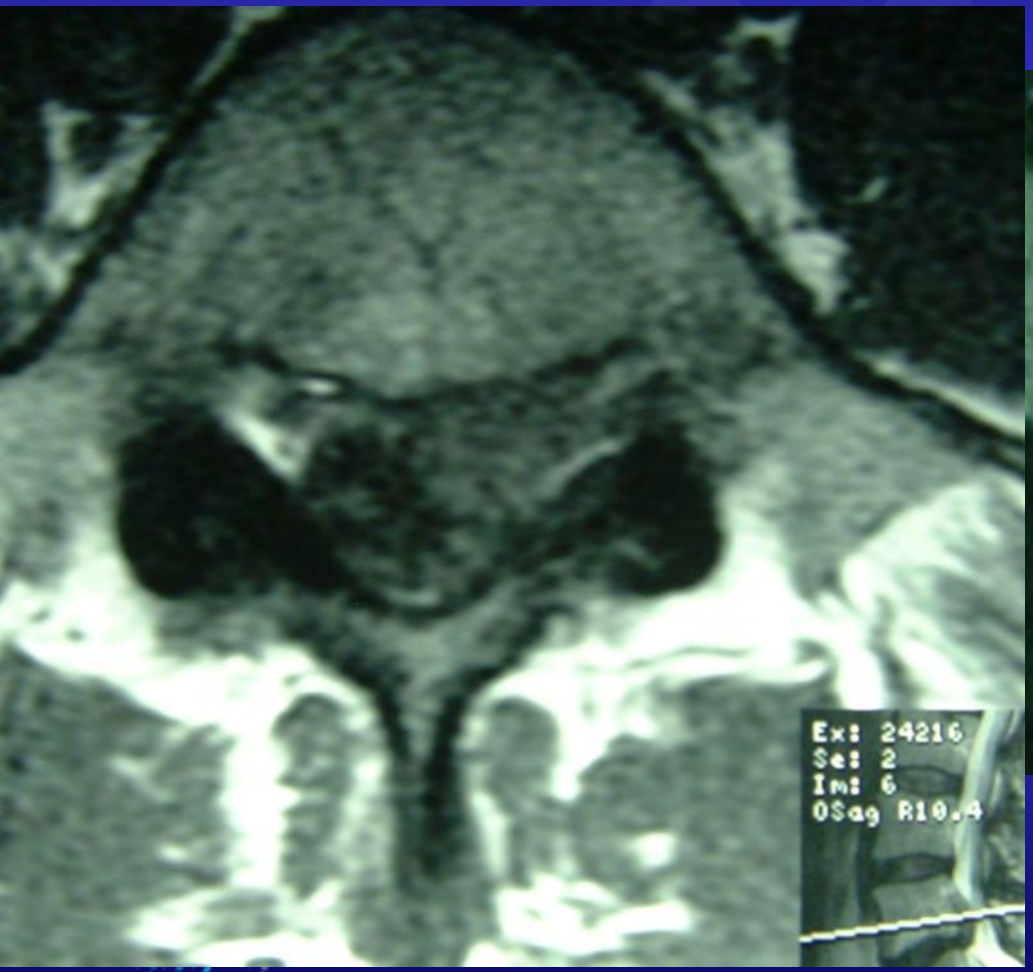
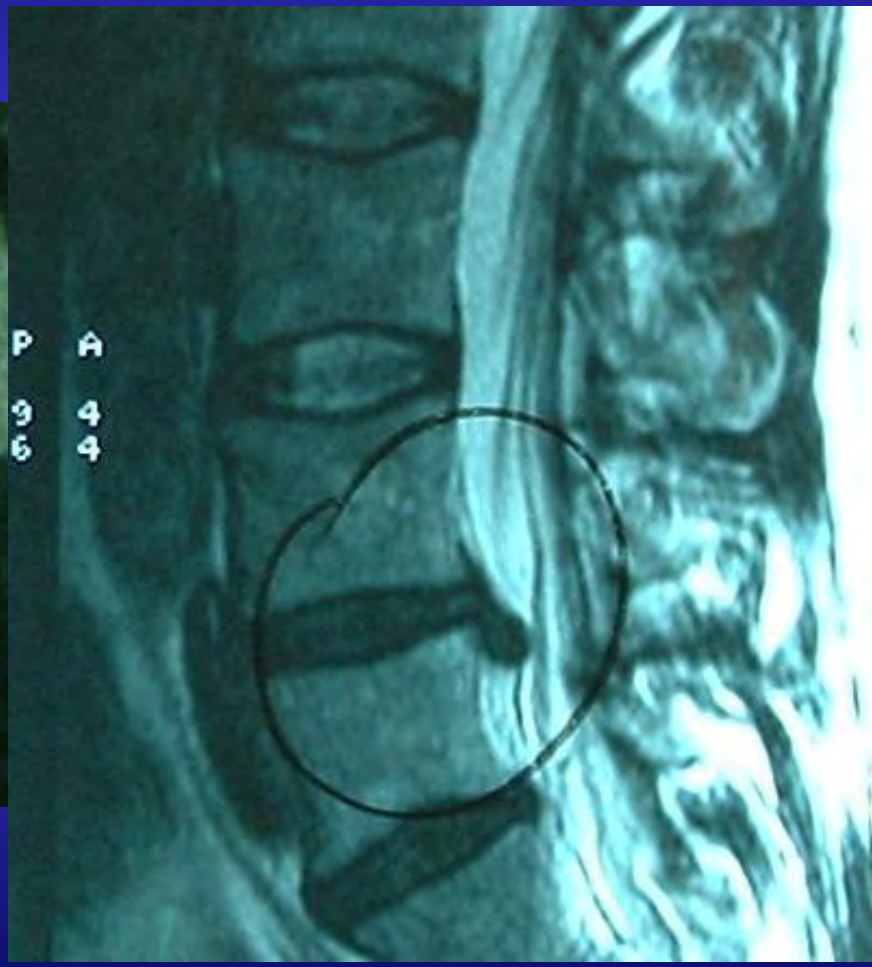
Investigations





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D. Treatment

- Initial
  - Non-operative
  - Surgical
- Aspects of Rehabilitation and secondary prevention (of recurrences)

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Non operative Treatment
of disc herniation

- Regular analgesia (not p.r.n)
- Anti-inflammatories
  - NSAIDS
  - Early peri-radicular steroid injection?
- Maintain physical activity (ADLs at least)
- Extension exercises (if extrusion or sequestration extension can make pain worse)
- For how long???

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Non operative Treatment
of disc herniation

- As long as there is improvement, continue non-operative treatment for up to three months.

- If progress is not adequate patient will tell you

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Surgical Options
(for disc herniation)

- Surgical decompression is a QOL decision
- Long term results similar to non-operative measures
- There is a 10% recurrence rate
- Discectomy +/- laminotomy +/- rhyzolysis of the nerve root
- Microdiscectomy does not mean a smaller incision, but the use of vision augmentation

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Aspects of Rehabilitation

- Make patient self-sufficient, independent of
  - Medication
  - Health practitioners
    - (doctors, physios, osteos, chiros, massage Rx, etc)
- Prevention of recurrences
  - General fitness
  - Lumbopelvic stability training
  - Manual handling and postural training

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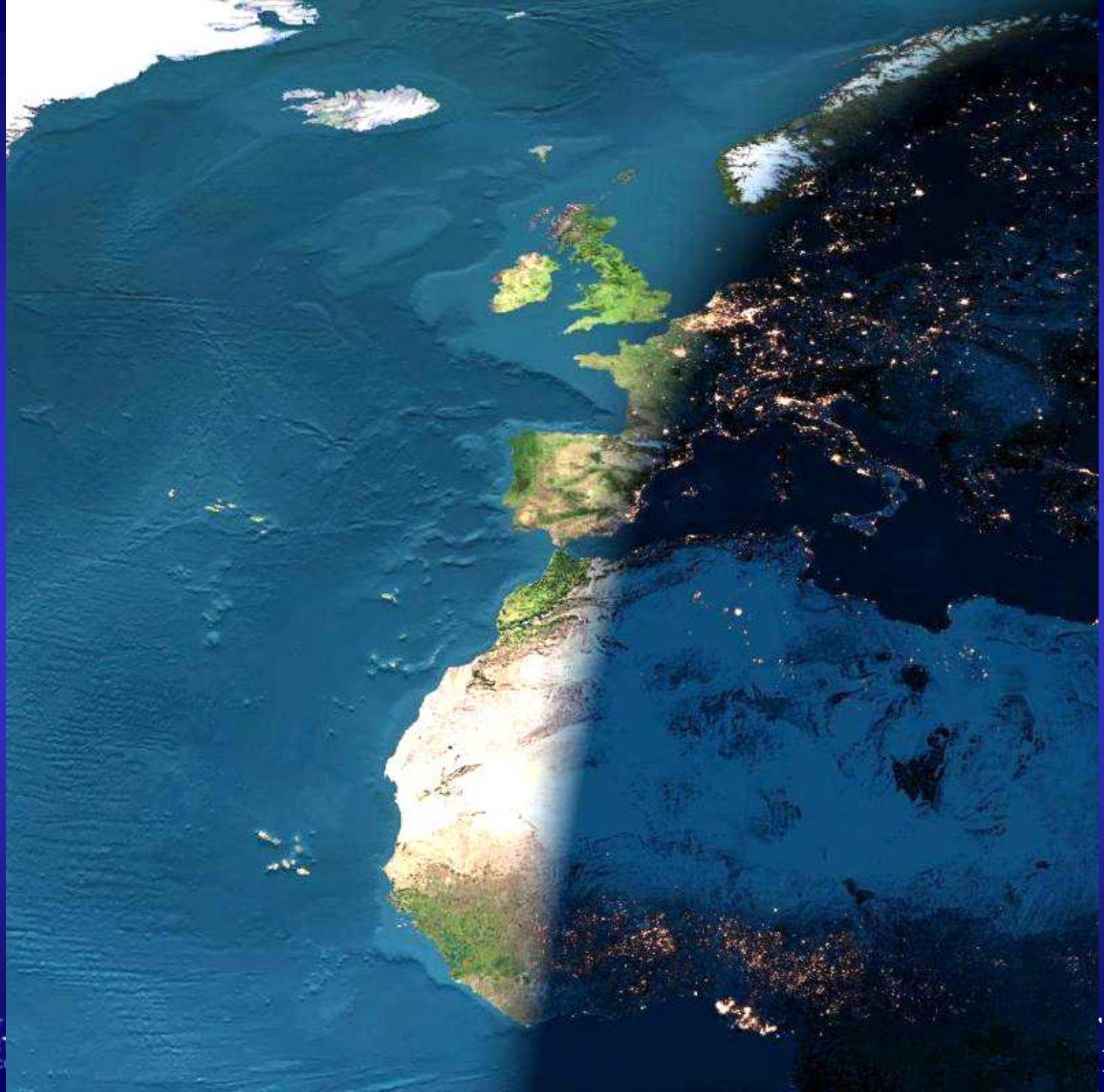

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