Rheumatology - The Future

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Rheumatology

- Multisystem disease ‘last of the general physicians’

- Multidisciplinary specialty (Nurse, physiotherapist, OT)

- Rapidly expanding field early diagnosis and treatment

- New targeted treatments in development

- Treatment allows patients to keep active and working
A to Z of Arthritis

Ankylosing spondylitis
Antiphospholipid syndrome
Back pain
Behçet's syndrome
Calcium crystal diseases (pseudogout)
Carpal tunnel syndrome
Complex regional pain syndrome
Fibromyalgia
Foot pain
Gout
Joint hypermobility
Juvenile idiopathic arthritis (JIA, arthritis in childhood)
Knee pain
Neck pain
Lupus

Osteoarthritis
Osteoarthritis of the knee
Osteomalacia (soft bones)
Osteoporosis
Paget's disease of bone
Patellofemoral pain syndrome
Polymyalgia rheumatica (PMR)
Polymyositis and dermatomyositis
Psoriatic arthritis
Raynaud's phenomenon
Reactive arthritis
Rheumatoid arthritis
Scleroderma
Shoulder pain
Sjögren's syndrome
Tennis elbow
Vasculitis
What causes arthritis?
Why me?

Genetics
Hormones
Environment
  • Smoking
  • Diet
Infection
  • Viruses
Rheumatoid arthritis

• Chronic inflammatory arthritis

• Affects 0.8-1.0% of the population in the UK

• 3 times commoner in women

• Can affect any age - usually starts 40-60 years
‘Is it in the genes?’
Christian Barnard (1922 – 2001)
Renoir (1841 – 1919)
What about smoking?

Increases the risk of developing severe RA
‘Is it from what I eat?’

Mediterranean diet is protective
‘What about exercise?’
Rheumatoid arthritis

- Pre-clinical Disease
  - Acute inflammation
    - Persists, spreads, damages
      - Chronic Disease – DAMAGE and DISABILITY

Early Treatment
RF and Anti-CCP Production Precede the Onset in About 50% of Patients with RA

Cumulative frequency of patients with IgM-RF or anti-CCP before the onset of RA indicates early humoral activation

Serologic Analysis of 98 Patients with RA and 232 Control Patients

<table>
<thead>
<tr>
<th></th>
<th>Sensitivity</th>
<th>Specificity</th>
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<tbody>
<tr>
<td>Anti-CCP</td>
<td>41%</td>
<td>97.8%</td>
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<tr>
<td>RF</td>
<td>62%</td>
<td>84%</td>
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<tr>
<td>Combination of anti-CCP and RF</td>
<td></td>
<td>99.6%</td>
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Navigating the Arthritis Maze

The S factor

Have you got... The S factor?

Stiffness
Early morning joint stiffness lasting over 30 minutes

Swelling
Persistent swelling of one joint or more, especially hand joints

Squeezing
Squeezing the joints is painful in inflammatory arthritis

This could be inflammatory arthritis
Early Arthritis
Navigating the Arthritis Maze
Navigating the Arthritis Maze

Rheumatology Clinics 'Care Closer to Home'

Wallingford

Townlands (Henley)

Royal Berkshire Hospital (Reading)

Newbury (WBCH)

Woosethill (Wokingham)
Goals of Management in RA

The Evolving management of RA

- **1591**: "Rheumatism" (Guillaume de Baillou)
- **1680s**: Quinine
- **1859a**: "Rheumatoid Arthritis" (Sir Alfred Garrod)
- **1860s**: Willow Bark
- **1890s**: Manufactured Aspirin
- **1920s**: Gold Injections
- **1940s**: Steroids
- **1980s**: Methotrexate (MTX)
- **1990s**: Biologics

Anti-TNF alpha treatment (biologic therapy)
Navigating the Arthritis Maze

Higher-level immune regulation and immune senescence

APC

GM-CSF

Anti-TNF

Anakinra

Tocilizumab

Synovial inflammation

Extracellular matrix proteins

Degenerative changes

Systemic inflammation

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Summary

• Increase public awareness

• Early detection and aggressive treatment

• Remission is the mission (DMARDs/Biologics)

• ‘Personalised’ medicine (targeted therapies)
Thank you.

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