Birth weight, osteoarthritis of the hand, and cardiovascular disease in men

Haara et al reported recently that the prevalence of osteoarthritis (OA) in at least one hand joint significantly predicted cardiovascular mortality in a sample of 1560 Finnish men aged 30 or over. OA was ascertained radiographically and classified using Kellgren's scoring system. The association between hand OA and male cardiovascular mortality was independent of age, education, history of workload, and body mass index.

We have investigated the prevalence of hand OA in a British national cohort of 1467 men and 1519 women and looked at associations between hand OA and measurements of weight and height from birth to adulthood. The MRC National Survey of Health and Development is a prospective cohort study that has followed up a large sample of people born in England, Scotland, and Wales during a single week in 1946, with most recent data on our homepage.

The editors will decide as before whether also to publish it in a future paper issue.

Table 1 Association between birth weight and clinical hand osteoarthritis (OA) in men aged 53 years

<table>
<thead>
<tr>
<th>Birth weight (kg)</th>
<th>Number</th>
<th>With OA</th>
<th>Without OA</th>
<th>Hazard ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;3.1</td>
<td>82</td>
<td>269</td>
<td>1.7 (1.2 to 2.5)</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>85</td>
<td>325</td>
<td>1.0 (1.0 to 2.2)</td>
<td></td>
</tr>
<tr>
<td>3.8</td>
<td>58</td>
<td>290</td>
<td>1.1 (0.8 to 1.7)</td>
<td></td>
</tr>
<tr>
<td>&gt;3.8</td>
<td>53</td>
<td>300</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

p Value for trend = 0.002.

References

Author’s reply
In a prospective cohort study Sayer et al found that lower birth weight was associated with the development of adult hand OA in men. As the authors mentioned, the relationship between adult coronary heart disease and poor growth in utero is well established. Based on these facts they suggest that the relation between hand OA and cardiovascular mortality in men may be explained by both diseases sharing a common origin in adverse early environmental conditions.

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Imaging in rheumatology

Almost 60 contributors collaborated with the editors to produce this first edition on imaging of the rheumatic diseases. The great majority of the contributors are from the UK, with most of them working in departments of rheumatology.

The aim is to provide the rheumatologist as well as the radiologist with a comprehensive review of the currently available imaging modalities. The editors’ purpose was to outline how these methods are used to investigate rheumatic symptoms and in the long term management of patients with diverse diseases of joints, muscles, and bones.

There are three sections. The first six chapters focus on modes of imaging and provide the reader, especially the non-radiologist, with a background of knowledge of the available methods. The five chapters of the second
section choose a clinical symptom-oriented approach such as localised pain in the arms and legs or joint swelling. While these first two sections focus on musculoskeletal imaging rather than rheumatology alone, the third and largest section covers imaging of the different rheumatic conditions.

Most chapters are comprehensive and up to date such as those covering the modes of imaging. The MRI chapter outlines the outstanding ability of this modality to image joints as a whole organ including the soft tissues, bone, and cartilage as well as including functional parameters such as contrast media uptake. The growing importance of this imaging tool in rheumatology is emphasised in most chapters.

Imaging examples are generally well chosen and the image quality is good. There are seven pages of coloured illustrations in the middle of the book which would have been better placed adjacent to their respective texts. Each chapter stands by itself and, therefore, it is possible to focus directly on the matter of interest. However, as a consequence it is impossible to avoid overlaps between the different topics of the book. This is a minor inconvenience when the book is read as a whole. On the other hand, it allows each chapter to be comprehensive, which is an advantage when chapters are read individually.

Most chapters are well referenced and take recent publications into account. Chapters differ in length, references, and illustrations, indicating that each author has been left the freedom to organise the individual chapter. For example, 19 pages are devoted to the chapter on imaging of antiphospholipid antibody syndrome, whereas only 14 pages cover imaging of the seronegative spondyloarthopathies. The excellent chapter on the mostly rare heritable disorders of the skeleton adds to the complete coverage of the topic.

Mention should have been made of some of the interventional techniques radiology can offer the clinician such as fluoroscopic or CT guided percutaneous infiltration, facet joint block or vertebroplasty for osteoporotic vertebral fractures. The challenging new applications of multidetector CT scanning were not covered in any of the chapters.

It is perplexing why the topic of bone mineral density is found in the chapters of nuclear medicine and peripheral joint swelling. The chapters on systemic lupus erythematosus, systemic sclerosis, vasculitides, and antiphospholipid antibody syndrome also comprehensively cover the non-skeletal manifestations and their imaging.

Despite these few critical remarks the authors and editors are to be commended for producing this first edition. We recommend this book especially to the rheumatologist seeking a broad understanding of the radiological manifestations of the rheumatic diseases. It goes well beyond the coverage of only the rheumatic diseases and also provides insight into musculoskeletal imaging as a whole. The radiologist will find important information not included in standard radiology publications, such as epidemiology and clinical manifestations. Though not overwhelming in size, this volume is packed with a wealth of information that will prove useful to all clinicians caring for patients with a rheumatic disease.

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