Osteoarthritis of the Hip

Diagnosis must precede treatment

George Hartofilakidis
Required Knowledge

- Classification of OA of the hip
- Natural history of the different types
Osteoarthritis of the Hip Classification

- Idiopathic
- Secondary, mainly to congenital hip disease
<table>
<thead>
<tr>
<th>Type</th>
<th>n. of Hips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary to CDH</td>
<td>356 (54%)</td>
</tr>
<tr>
<td>Idiopathic</td>
<td>272 (41%)</td>
</tr>
<tr>
<td>Uncertain</td>
<td>32 (5%)</td>
</tr>
</tbody>
</table>
Osteoarthritis

Idiopathic

- Eccentric

- Concentric
Eccentric OA

Rapid

Deterioration
Concentric OA

Slow Deterioration
Eccentric OA
Concentric OA

54 yrs

64 yrs
Idiopathic Osteoarthritis of the Hip: Incidence, Classification and Natural History of 272 cases.

G. Hartofilakidis, Th. Karachalios

Orthopedics, February 2003
# Idiopathic Osteoarthritis

$n = 272$

<table>
<thead>
<tr>
<th>Type</th>
<th>n. of Hips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eccentric</td>
<td>218 (80%)</td>
</tr>
<tr>
<td>Concentric</td>
<td>54 (20%)</td>
</tr>
</tbody>
</table>
Osteoarthritis of the Hip

Secondary

- Congenital hip disease
- Osteochondritis
- Slipped capital epiphysis
- Avascular necrosis
- Trauma
- Others
Congenital Dislocation (CDH)
Developmental Dysplasia (DDH)

Congenital Hip Disease (CHD)
# Congenital Hip Disease (CHD)

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Journal</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanisavlgenic and Mitelel</td>
<td>JBJS Am</td>
<td>1963</td>
</tr>
<tr>
<td>Arnold et al.</td>
<td>JBJS Am</td>
<td>1964</td>
</tr>
<tr>
<td>Robin et al</td>
<td>Am J Publ Health</td>
<td>1973</td>
</tr>
<tr>
<td>Harris and Stulberg</td>
<td>JBJS Am</td>
<td>1973</td>
</tr>
<tr>
<td>Wedge and Wasylenko</td>
<td>Clin Orthop</td>
<td>1978</td>
</tr>
<tr>
<td>Walker</td>
<td>JBJS Am</td>
<td>1978</td>
</tr>
<tr>
<td>Thomas et al</td>
<td>JBJS Am</td>
<td>1982</td>
</tr>
<tr>
<td>Hartofilakidis et al</td>
<td>JBJS Am</td>
<td>1996</td>
</tr>
</tbody>
</table>
Classification of Congenital Hip Disease in Adults
Eftekhar 1978
Crowe et al 1979
Hartofilakidis 1988
Hartofilakidis et al
Classification

- Dysplasia
- Low dislocation
- High dislocation
The Hartofilakidis et al CHD Classification system

- JBJS 70-B, 1988
- JBJS 78-A, 1996
- JBJS 80-A, 1998
- Orthopedics 23, 2000
- Surgical Techniques in Orthopedics and Traumatology, 2000
- JBJS 86-A, 2004
Type A - Dysplasia

The femoral head is contained within the original acetabulum.
Type B – Low Dislocation

The femoral head articulates with a false acetabulum that partially covers the true acetabulum.
Type C – High Dislocation

The femoral head is migrated superiorly and posteriorly to the hypoplastic true acetabulum
Epidemiology, Demographics and Natural History of CHD in Adults

G. Hartofilakidis, Th. Karachalios, K. Stamos

Orthopedics, August 2000
**Congenital Hip Disease**

n = 356

<table>
<thead>
<tr>
<th>Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dysplasia</td>
<td>170 (47.7%)</td>
</tr>
<tr>
<td>Low Dislocation</td>
<td>85 (23.9%)</td>
</tr>
<tr>
<td>High Dislocation</td>
<td>101 (28.4%)</td>
</tr>
</tbody>
</table>
At Wrightington Hospital we are using the classification of Hartofilakidis et al because it describes the acetabular pathology more precisely.

P. Bobak, B.M. Wroblewski et al
To define the inherent difficulties in the reconstruction of congenital hip dislocation, we have used the simple and effective classification of Hartofilakidis et al.

W. Harris in the “Adult Hip”, 1998
Total Hip Replacement for the Dislocated Hip

G. Jaroszynski et al.

JBJS Am Feb 2001

The classification that we find most practical is that of Hartofilakidis et al: dysplasia, low dislocation and high dislocation
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