Osteoarthritis of the Hip

Diagnosis must precede treatment

George Hartofilakidis

Required Knowledge

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

A Classification System to be effective must:

- Include all types
- Easy to remember
- Accurate-logical
- Reproducible

Osteoarthritis of the Hip Classification

- Idiopathic
- Secondary, mainly to congenital hip disease

~~PRIMARY~~

IDIOPATHIC

Osteoarthritis of the Hip

Epidemiology

Classification of 660 Hips with Osteoarthritis

Type	n. of Hips
Secondary to CDH	356 (54%)
Idiopathic	272 (41%)
Uncertain	32 (5%)

Race and OA of the Hip

- Secondary OA more common in oriental people
- Idiopathic OA more common in Caucasian people

Osteoarthritis

Idiopathic

- ✓ Eccentric
- ✓ Concentric

Eccentric OA

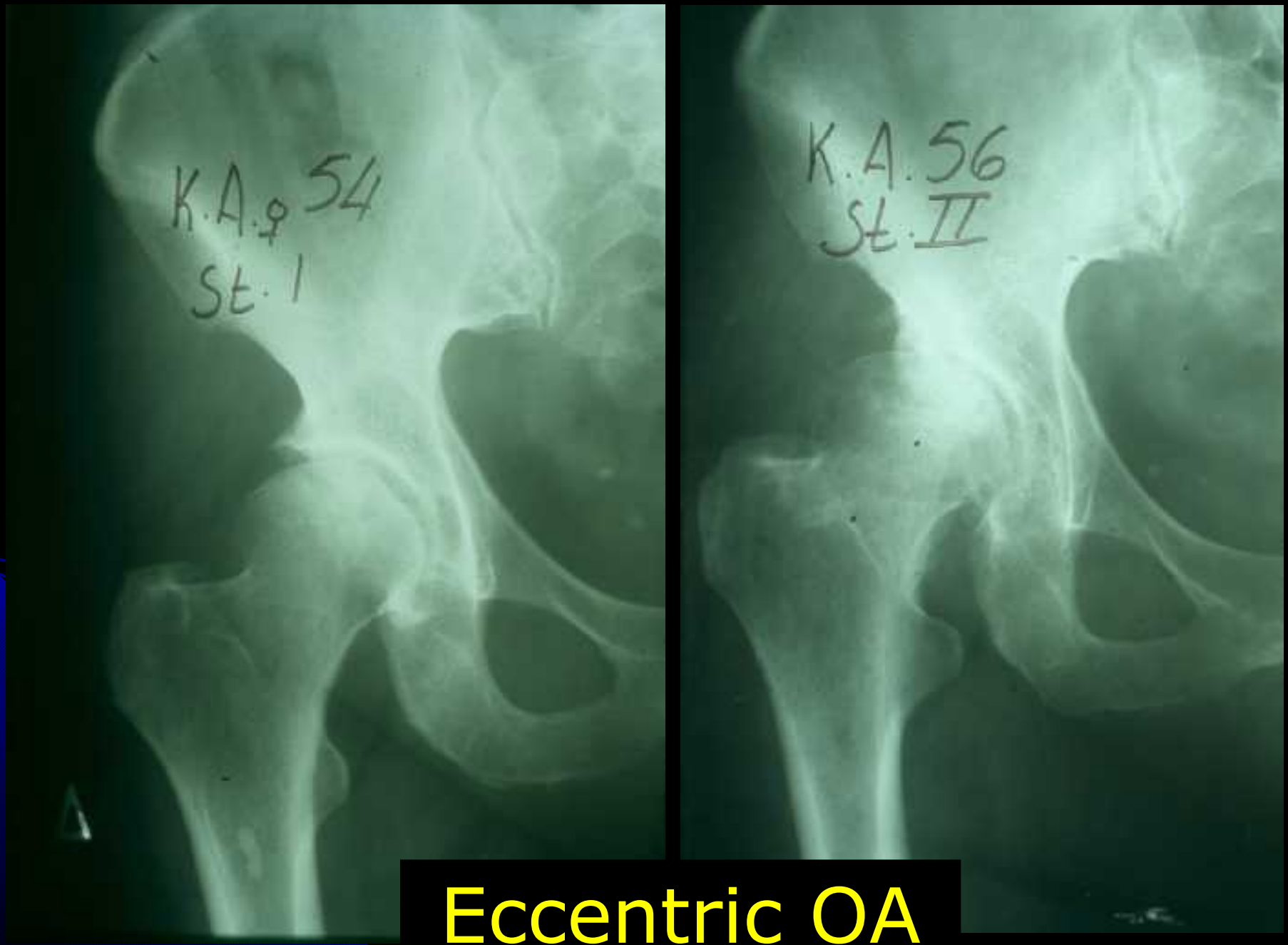
Rapid

Deterioration

Concentric OA

Slow Deterioration

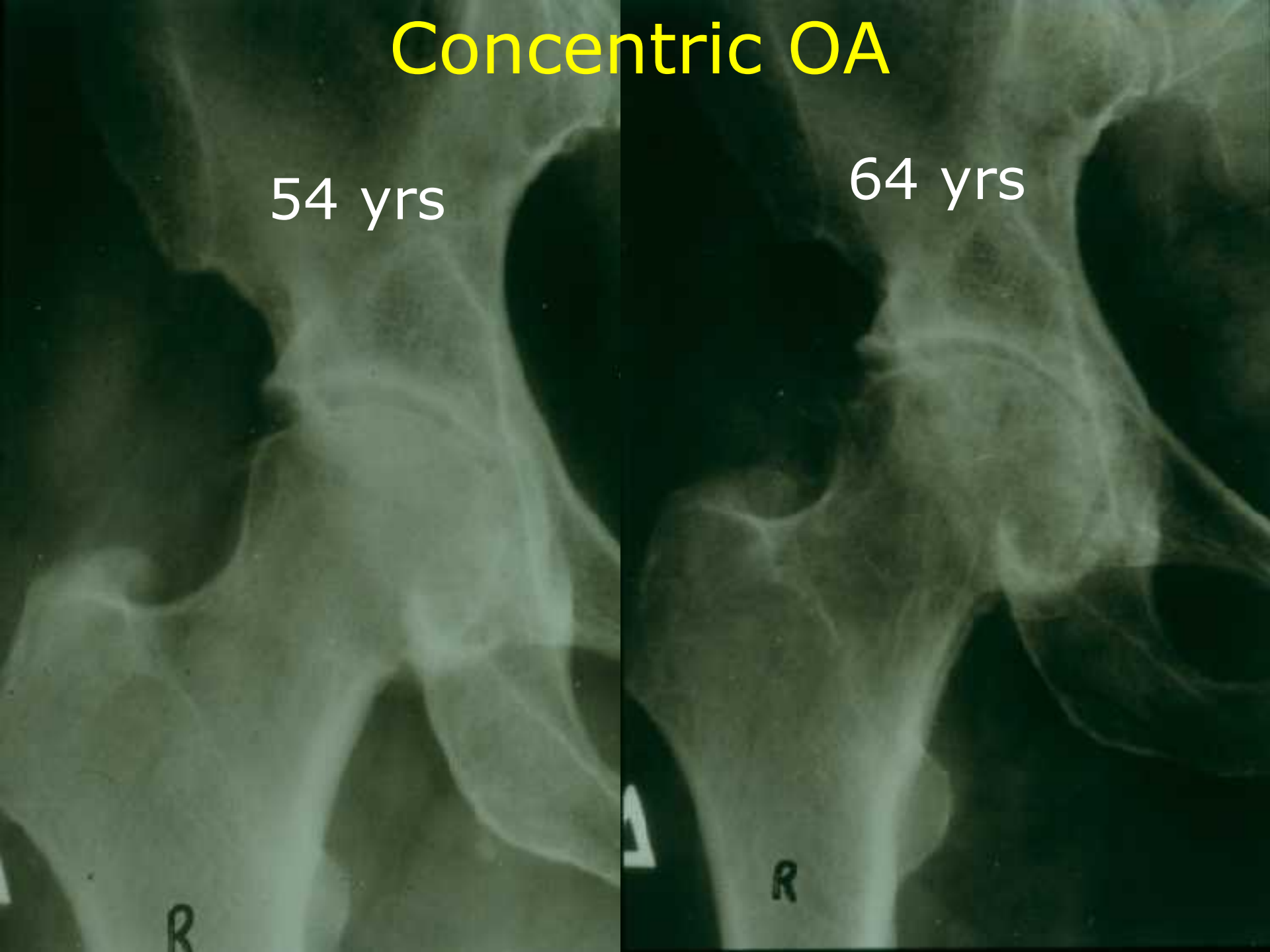
Eccentric OA



Eccentric OA

Eccentric OA

Concentric OA



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

G. Hartofilakidis, Th.Karachalios

Orthopedics, February 2003

Idiopathic Osteoarthritis

n= 272

Type	n. of Hips
Eccentric	218 (80%)
Concentric	54 (20%)

Onset of Symptoms (mean age)

- ✓ Idiop. OA (272 hips) 61 yrs
- ✓ Cong. Disease (356 hips) 35 yrs

First Message

Idiopathic Osteoarthritis does exist and is frequent

Second Message

The two main types of Idiopathic Osteoarthritis are:

Eccentric and Concentric

Third Message

- ✓ Eccentric OA is of bad prognosis
- ✓ Concentric OA has a better prognosis

Osteoarthritis of the Hip

Secondary

- Congenital hip disease
- Osteochondritis
- Slipped capital epiphysis
- Avascular necrosis
- Trauma
- Others

Slipped Upper Femoral Epiphysis

Legg-Perthes-Calve disease

Idiopathic Avascular Necrosis

~~Congenital Dislocation (CDH)~~

~~Developmental Dysplasia (DDH)~~

Congenital Hip Disease (CHD)

Congenital Hip Disease (CHD)

Stanisavlgenic and Mitelel	JBJS Am 1963
Arnold et al.	JBJS Am 1964
Robin et al	Am J Publ Health 1973
Harris and Stulberg	JBJS Am 1973
Wedge and Wasylenko	Clin Orthop 1978
Walker	JBJS Am 1978
Thomas et al	JBJS Am 1982
Hartofilakidis et al	JBJS Am 1996

Classification of Congenital Hip Disease in Adults

- ✓ Eftekhar 1978
- ✓ Crowe et al 1979
- ✓ Hartofilakidis 1988

Hartofilakidis et al Classification

- ✓ Dysplasia
- ✓ Low dislocation
- ✓ High dislocation

Classification

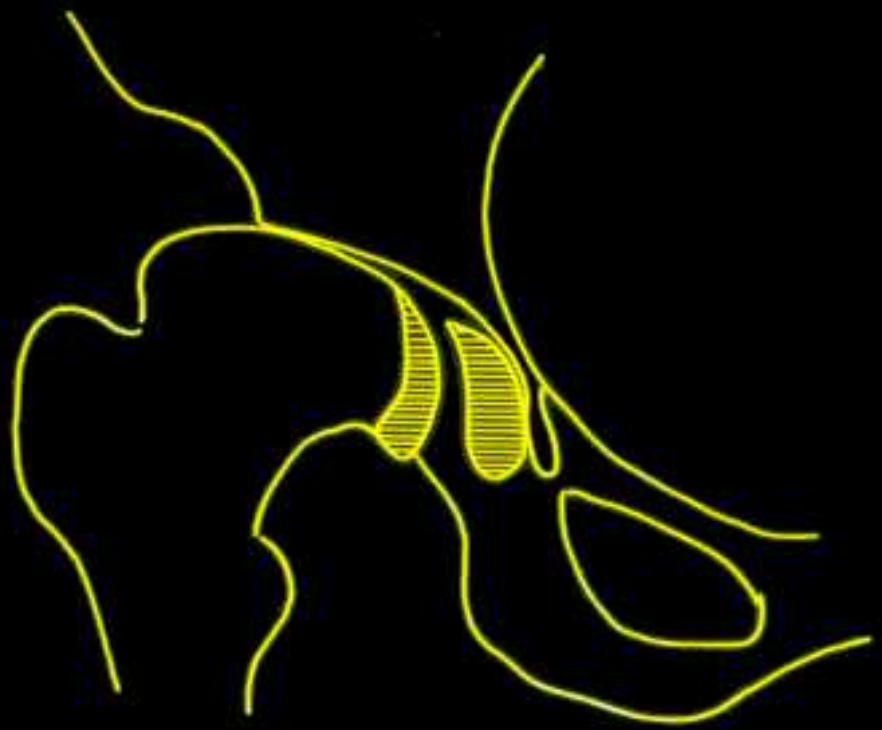
- ✓ Better communication
- ✓ Planning of the treatment
- ✓ Evaluation of results

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

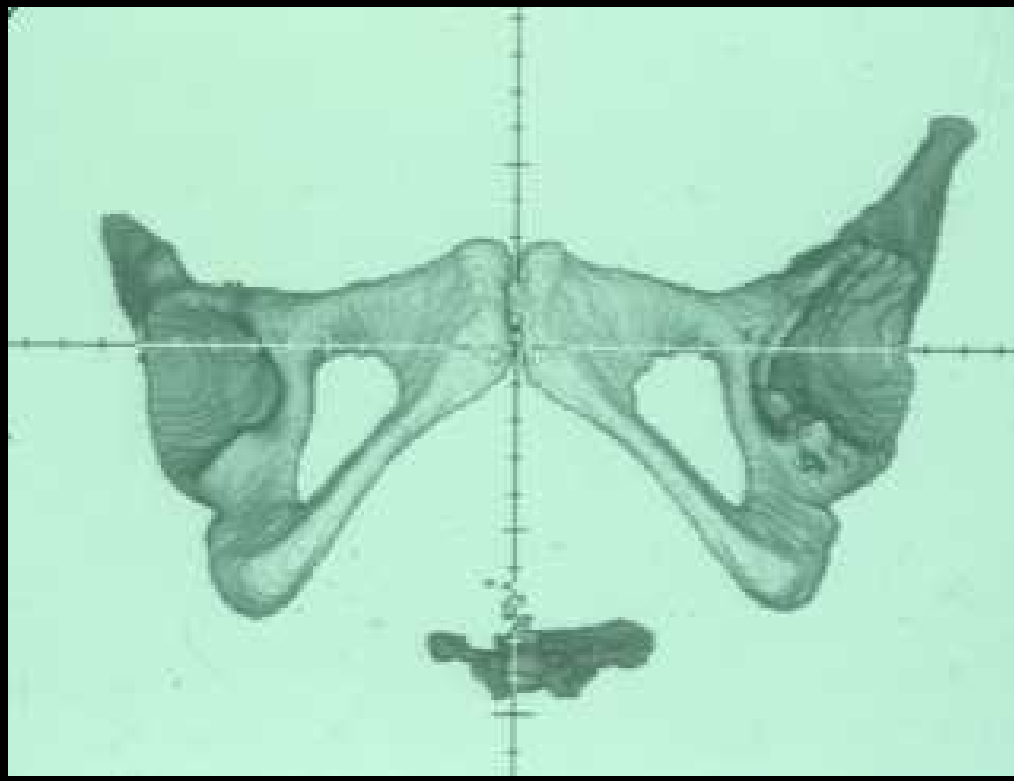
Type A - Dysplasia

The femoral head is contained within the original acetabulum



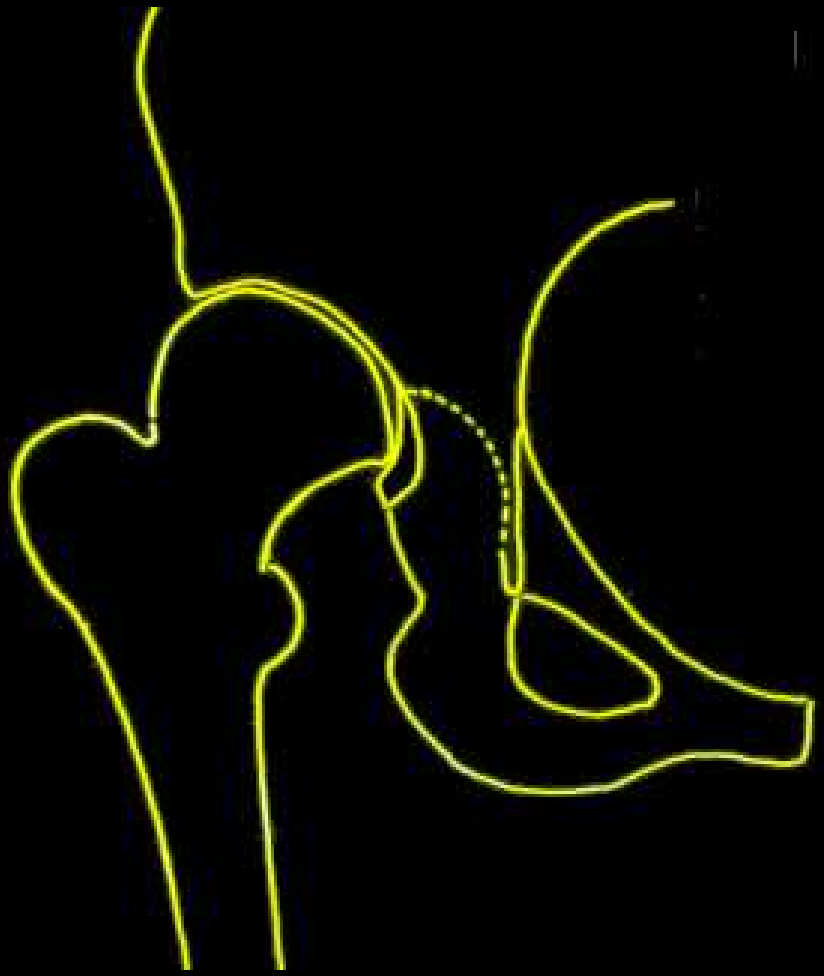
Hip Dysplasia

1. Segmental deficiency of the superior wall (roof)
2. Osteophyte covers the fossa (secondary shallowness)



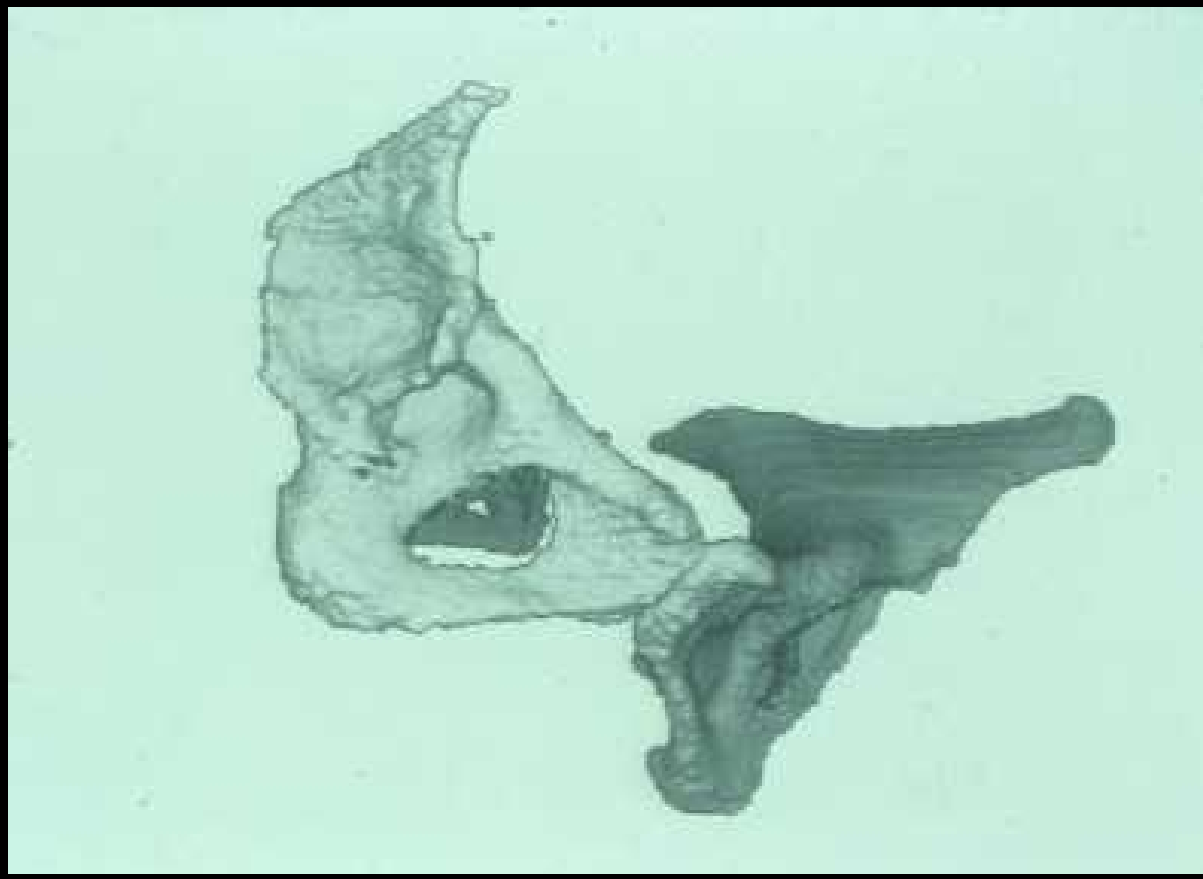
Type B – Low Dislocation

The femoral head articulates with a false acetabulum that partially covers the true acetabulum.



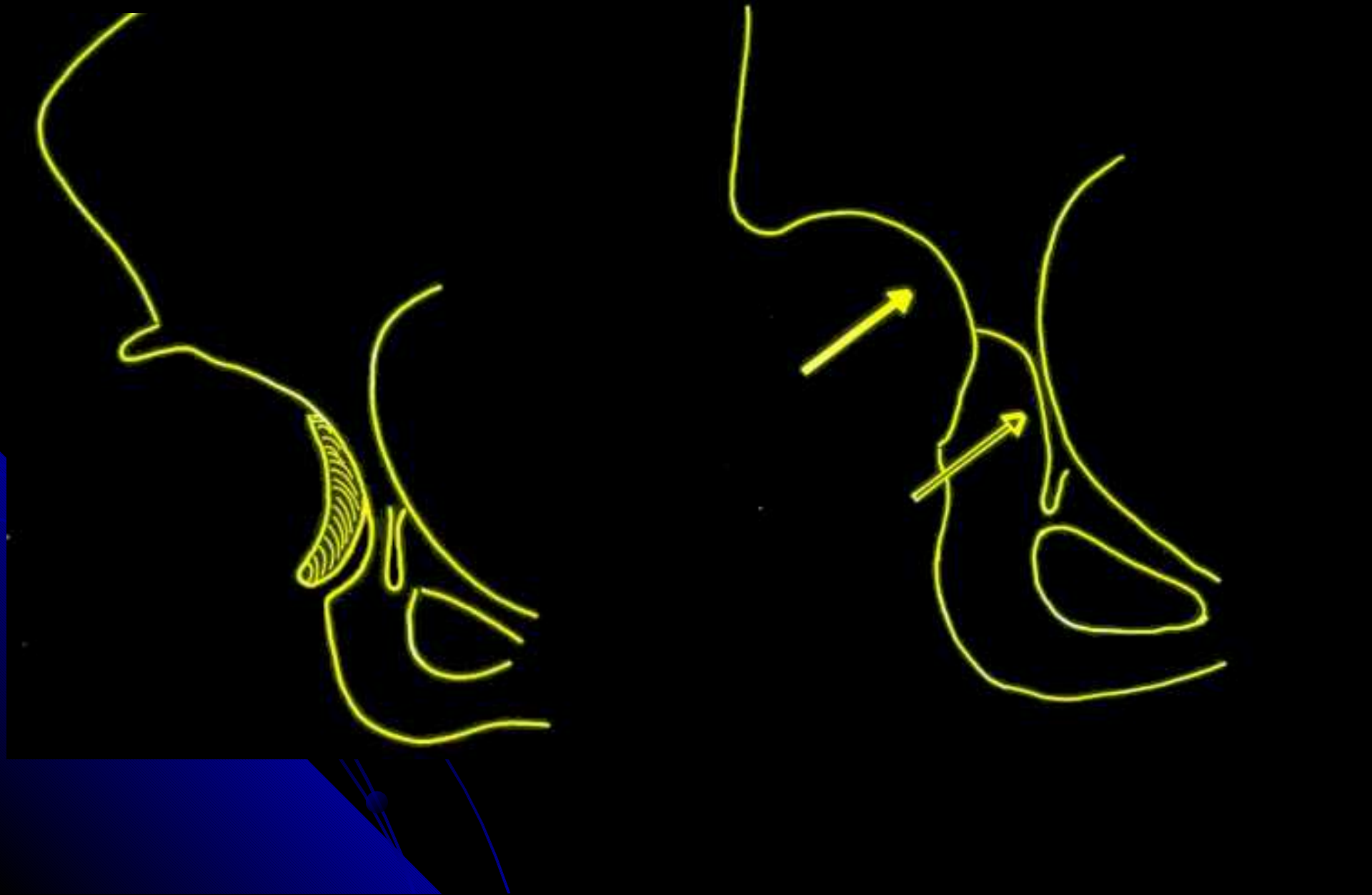
Low Dislocation

1. Anterior and posterior segmental deficiency
2. Narrow opening



Dysplasia

Low Dislocation

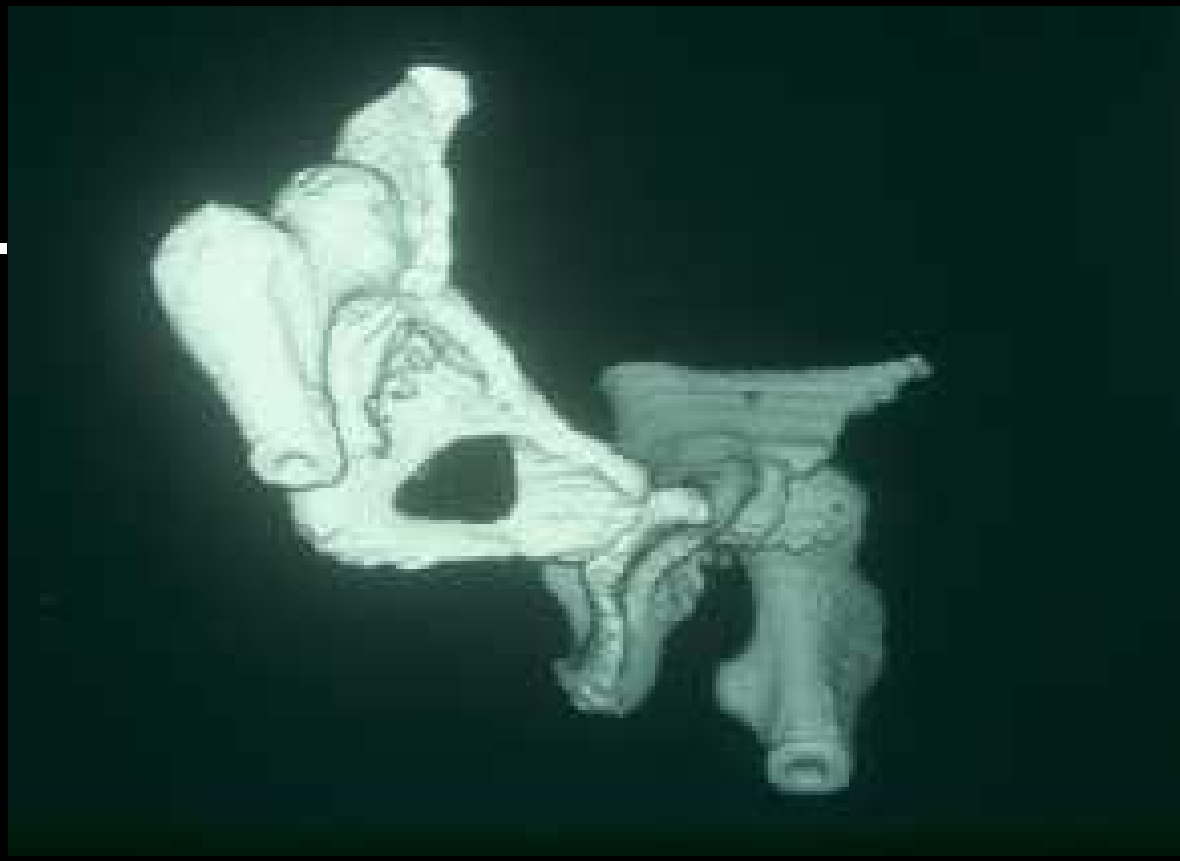


Type C – High Dislocation

The femoral head is migrated superiorly and posteriorly to the hypoplastic true acetabulum

High Dislocation

1. Segmental defect of the entire periphery. Inadequate depth
2. Abnormal distribution of the bone stock
3. Narrow opening
4. Excessive anteversion



Epidemiology, Demographics and Natural History of CHD in Adults

G. Hartofilakidis, Th. Karachalios, K. Stamos

Orthopedics, August 2000

Congenital Hip Disease

n= 356

Type	n. of Hips
Dysplasia	170 (47.7%)
Low Dislocation	85 (23.9%)
High Dislocation	101 (28.4%)

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

J Bone Joint Surg 82B, 2000

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

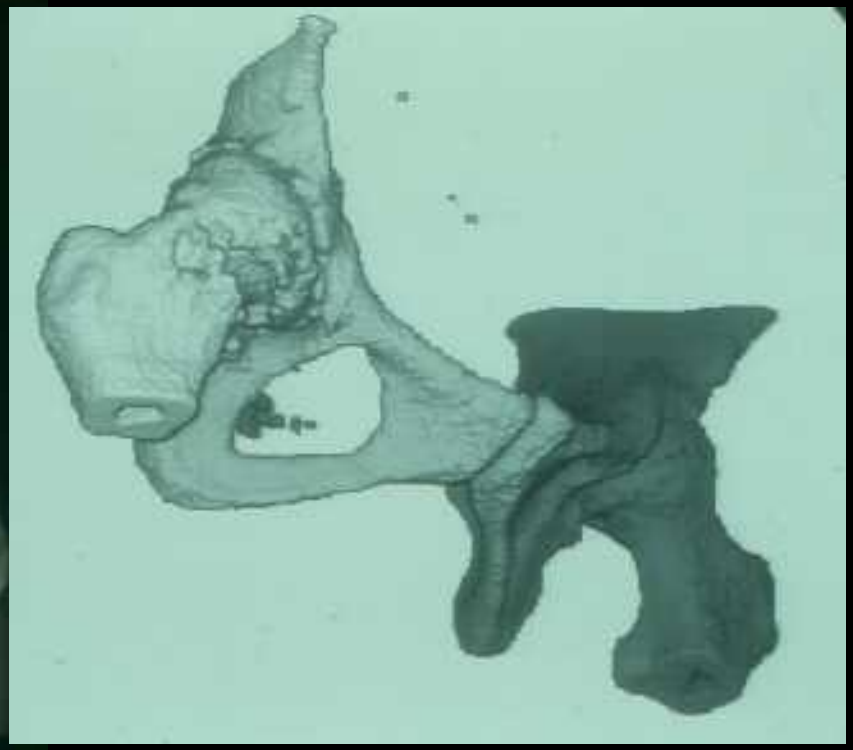
W. Harris in the “Adult Hip”, 1998

Total Hip Replacement for the Dislocated Hip

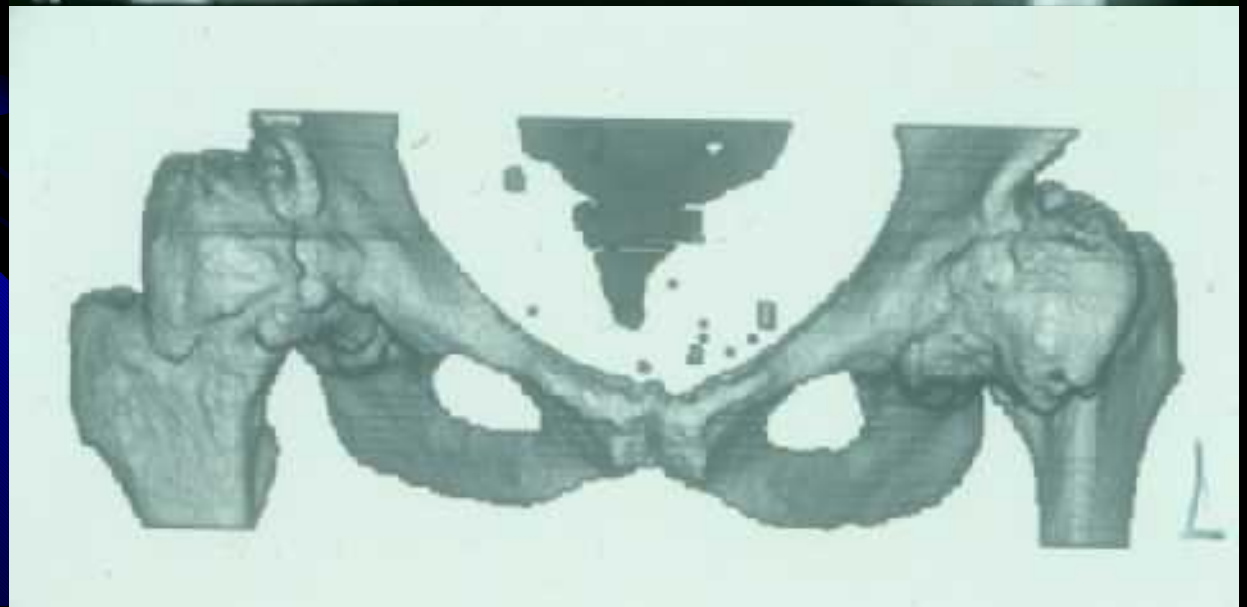
G. Jaroszynski et al.

JBJS Am Feb 2001

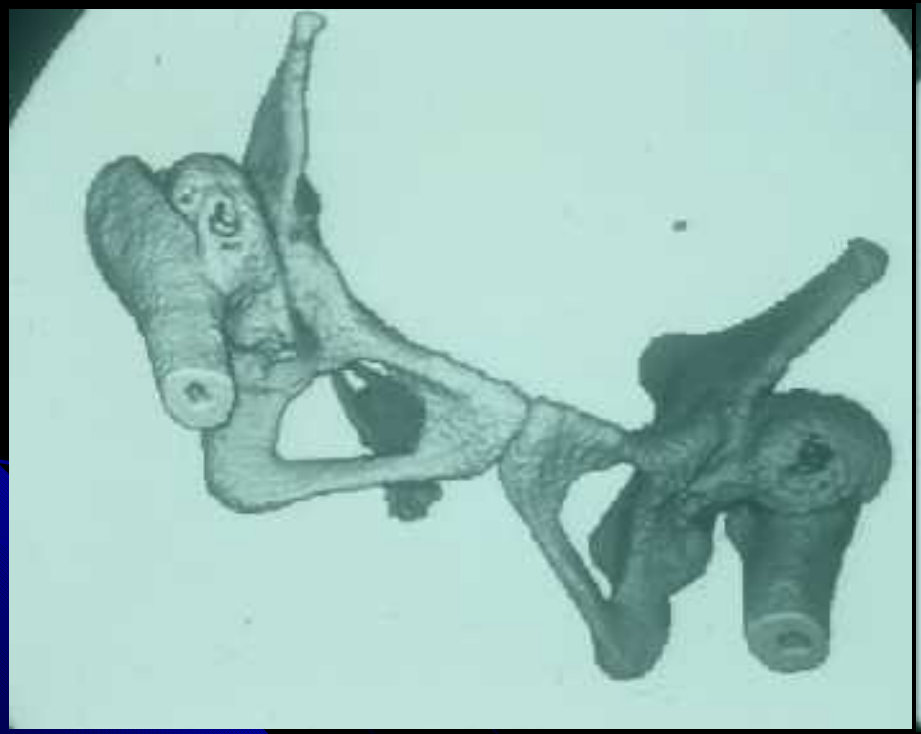
The classification that we find most practical is that of Hartofilakidis et al: dysplasia, low dislocation and high dislocation

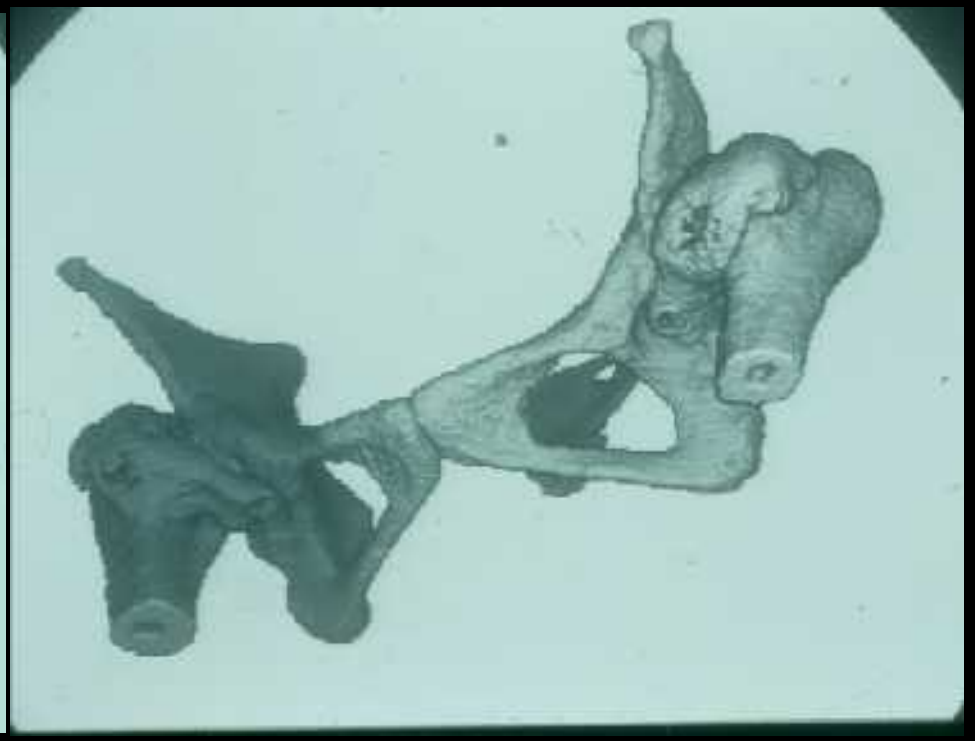



П. М ф38



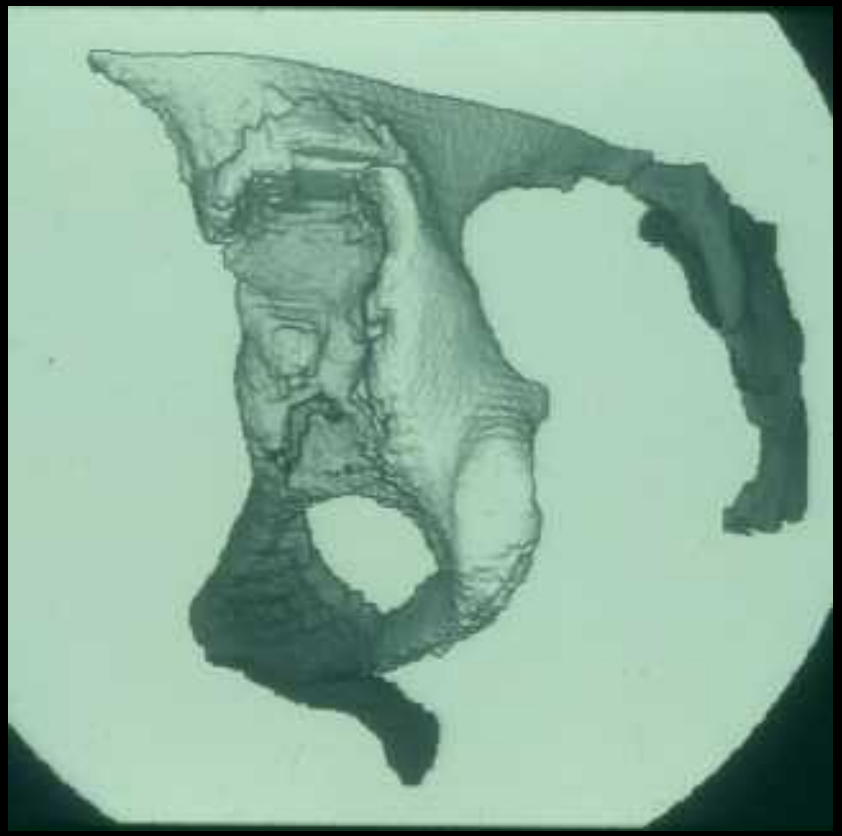

Eu. B. 28
1994



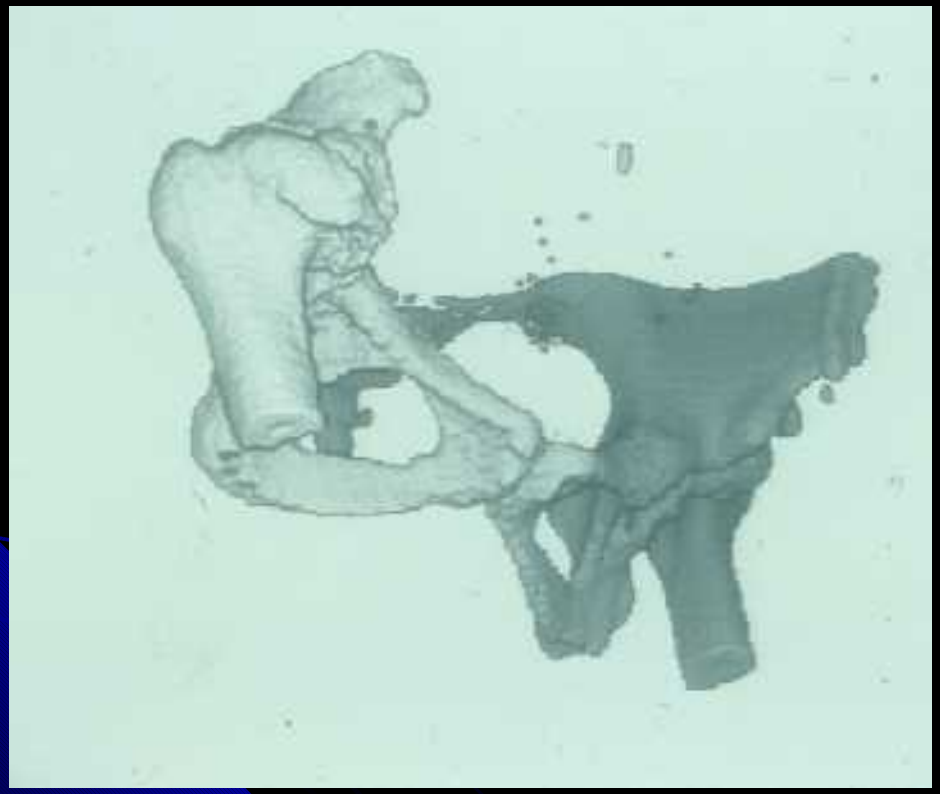


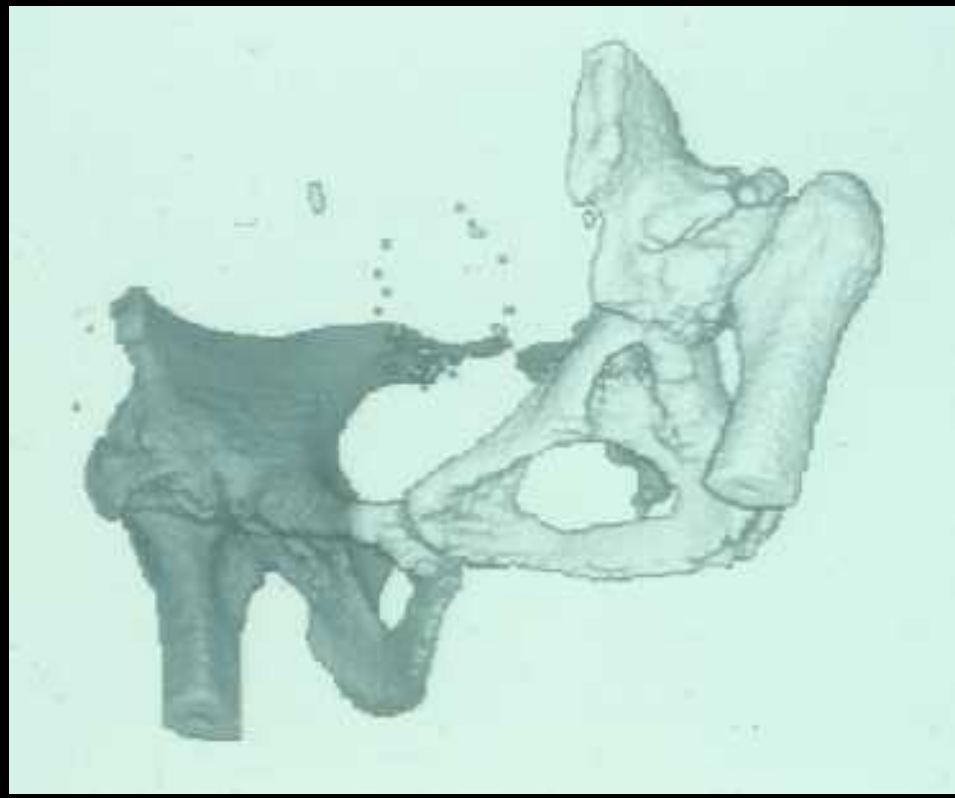

01. Tz. 48
1996


М.Г. ♀42

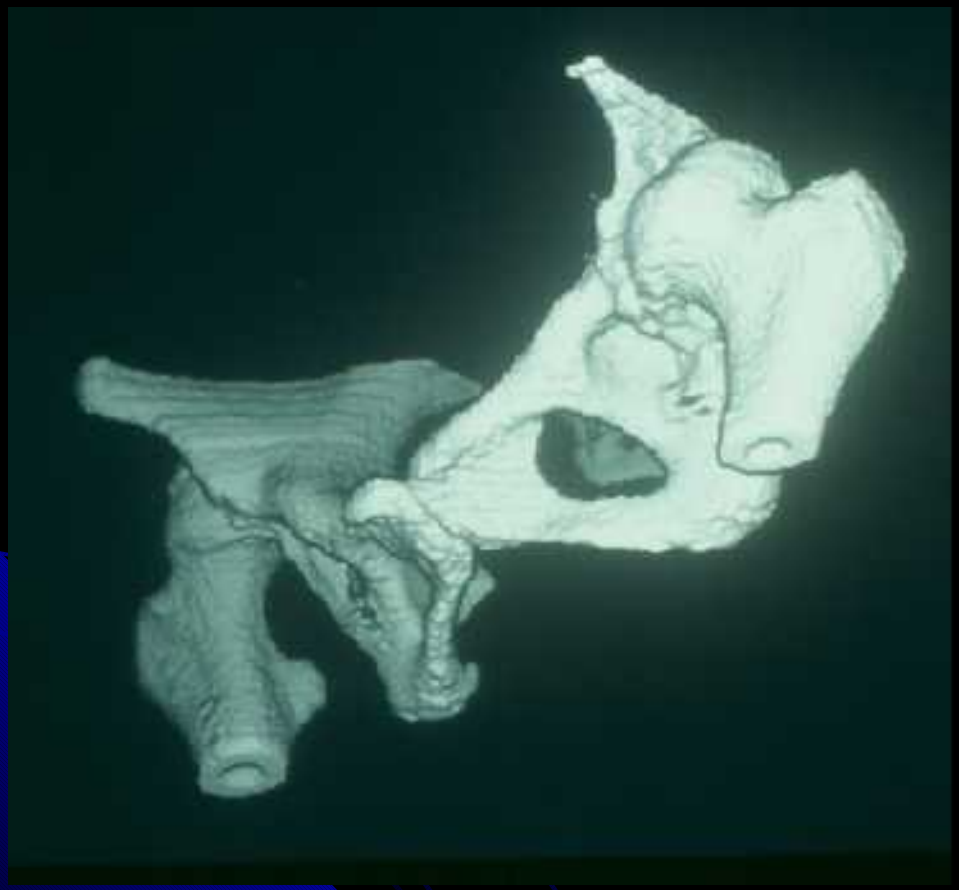


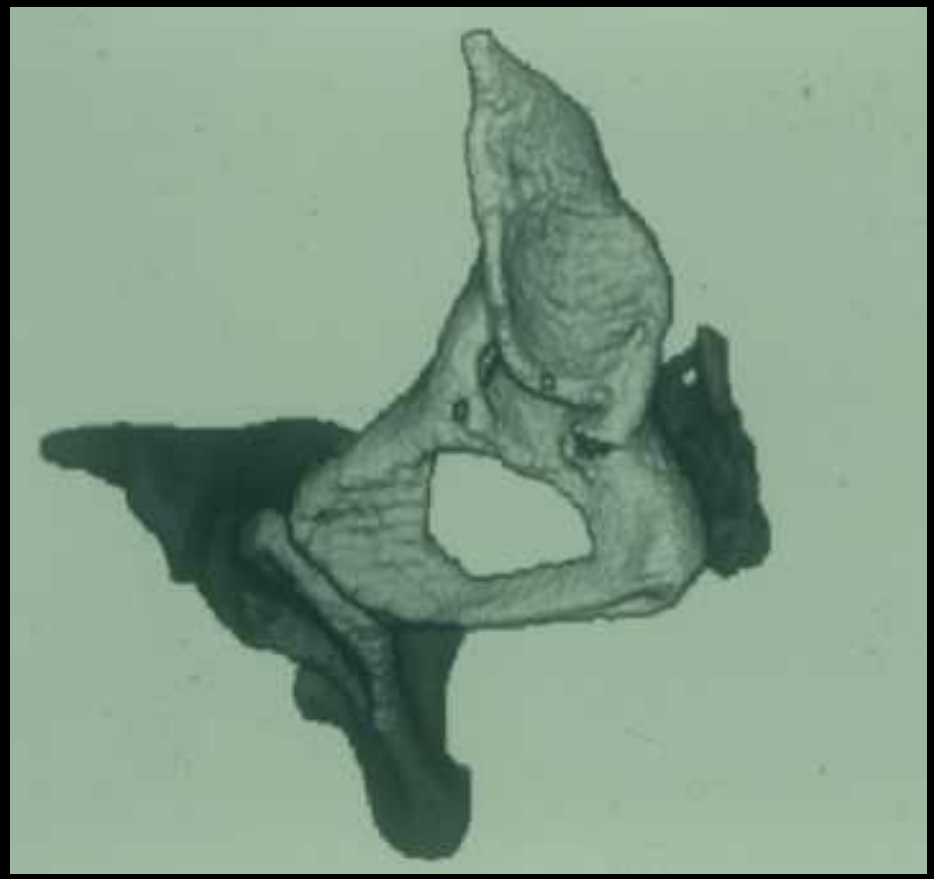

B. T. ♀ 44

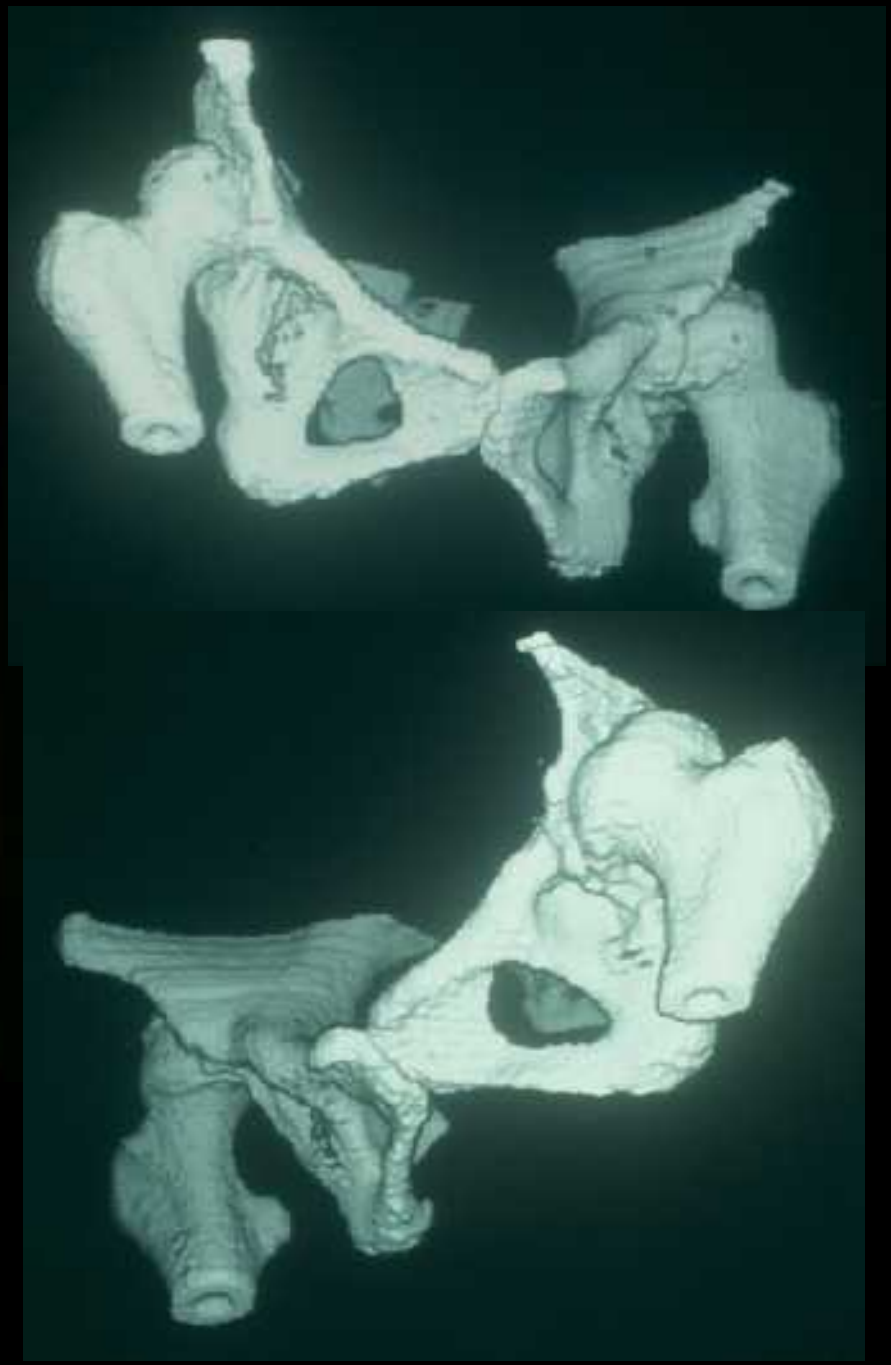




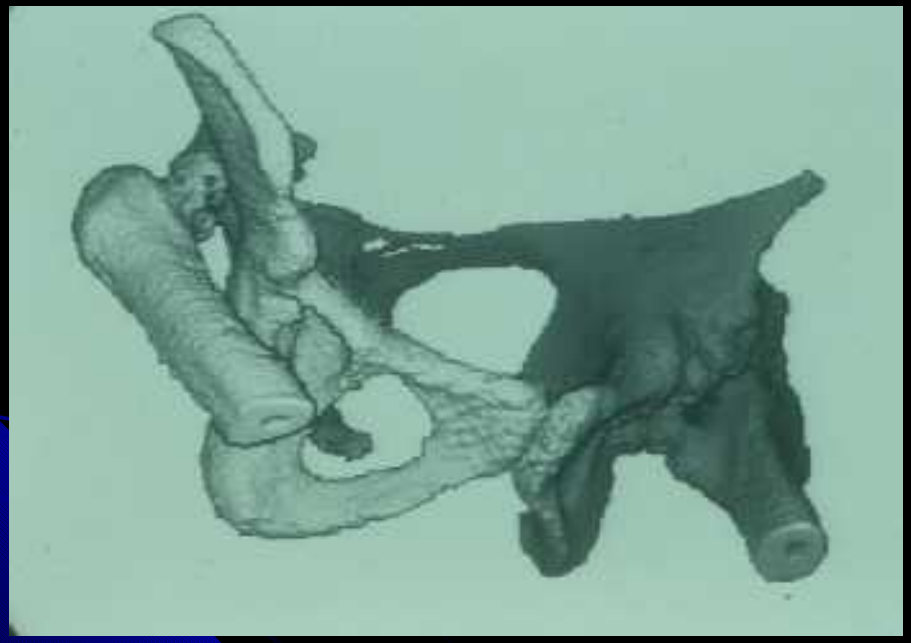

M.I
37 yss








Х. П. ♀ 43



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