So-called idiopathic scoliosis

Historical dates of discoveries. Fate and fortune of new knowledge

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Introduction

- 1984 Invalid Foundation Hospital in Helsinki, Finland – examined many children (mostly girls) – impossible to find the etiology
- 1984 – 1995 many scoliosis children in Lublin, in Orthopedic Department and in the Out Patients Clinic
- found asymmetry movements of the hips in all scoliosis children – limited adduction
- biomechanical influences – “standing ‘at ease’ on the right leg” and “gait” → spine deformity (scoliosis)
- gait – compensatory movement in the pelvis and in the spine → rotation deformity

Introduction

<u>Following elements determine the etiology of scoliosis:</u>

a. asymmetry movement of the hips
b. asymmetry time of loading left : right leg – more on the right
c. rotation movement of the spine during walking
d. in result “asymmetry growth of the spine” – scoliosis

→ since 1995 the term “so-called idiopathic scoliosis” instead of “idiopathic scoliosis”

Historical dates of discoveries

- 1995 – first lecture during the Orthopedic Congress in Szeged, Hungary.
- 1996 – first publication in Orthopädische Praxis in Germany.
- 2001 and 2004 – new (Lublin) classification → 3 epg., 4 types:

a) "S" scol. – 1st epg. (Fig. 4)

b) "C" and "S" scol. – 2nd A and B epg. (Fig. 5, 6)

c) "I" scol. – 3rd epg. (Fig. 7)

→ "I" scoliosis - before 2004 not been classified as a scoliosis – consists only of "stiffness of the spine and hips" without curves or only with small ones

Historical dates of discoveries

- 2006 – the ultimate description of the “type of hip movements” and the “type of scoliosis”.
- 2007 – description of indirect influences from the pathologic symptoms of Minimal Brain Dysfunction
- found answer “why blind children do not have scoliosis”
- 2000-2020 – many lectures abroad (Slovakia, Czech Republic, Hungary, Germany, England, Spain, Belgium, China, Egypt, Turkey, Morocco, Belarus and Finland).

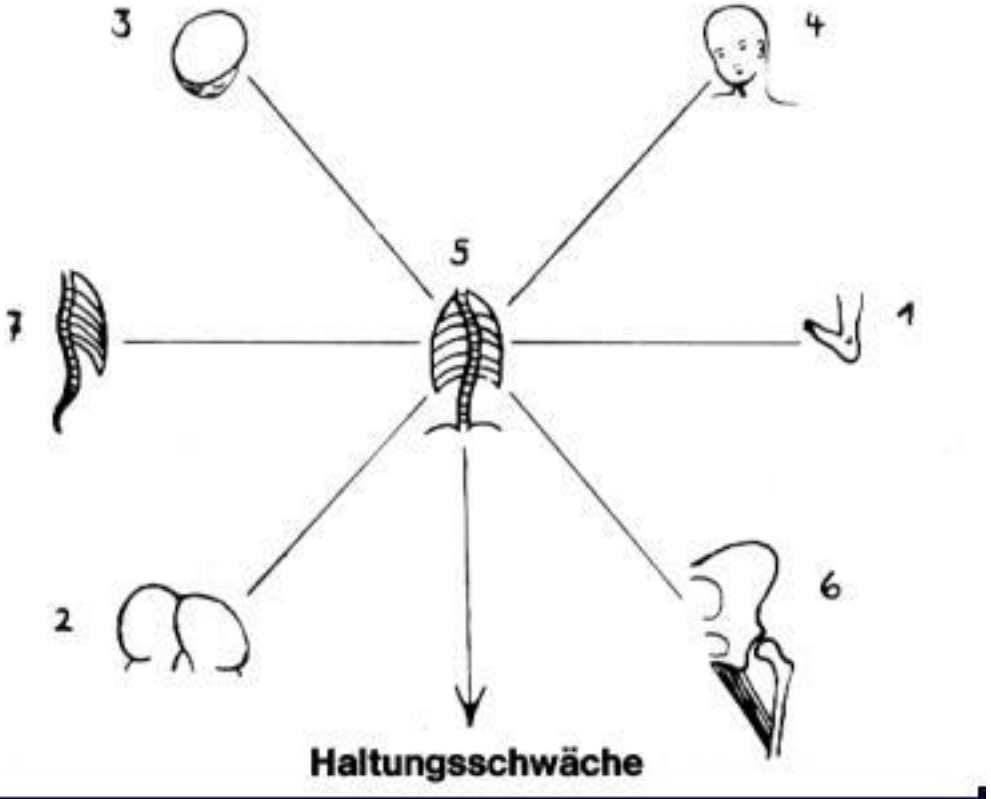
Fig. 1

Prof. Hans Mau [from Tübingen / Germany] described the „Syndrome of Contractures" – in German - Siebener [Kontrakturen] Syndrom

22. Das Siebenersyndrom

1963 beschrieb *H. Mau*, fußend auf de
allem *Gotzmann* 1945 und *Imhäuser*

einen Symptomenkomplex von 7 Erscheinungsbildern,
SS gehäuft auftreten. Es sind dies neben der *frontalen*
mit dem dazugehörigen konvexseitigen Rippenbuckel u
Eine *Schädelasymmetrie* mit konkavseitiger Hinterhaupt
sinnige *Beckenasymmetrie*. Hinzutreten, neben den kon
turen der Wirbelsäule, ebenfalls kontrakturbedingt, *Hac*
Kopfs, und vor allem eine Adduktionskontraktur nebst
letzt auch eine *lumbodorsale Kyphose* (Abb. 21), alles
tungsschwäche des Rumpfes und der Füße (lockerer ki
Diese 7 fakultativ, passager und in leichter Form auf
dienen als *Leitsymptome* für die Diagnose SS (und Hüft
Es wurde weiterhin vermutet, daß sich aus bestimmt
Deformitäten entwickeln können; denn *Helg. Mau* fand
100 Fällen der Heidelberger Klinik z.B. bei fast einem
zum Formenkreis der Lux. cox. cong. gehören, und vo
tungen des Kopfs mußten später 2 als Schiefhals operie



In pathology of movement apparatus [locomotors system] the cause of the deformity is not „weakness of muscles" but various „shortenings" – „contractures" of soft tissues – described by Prof. Hans Mau

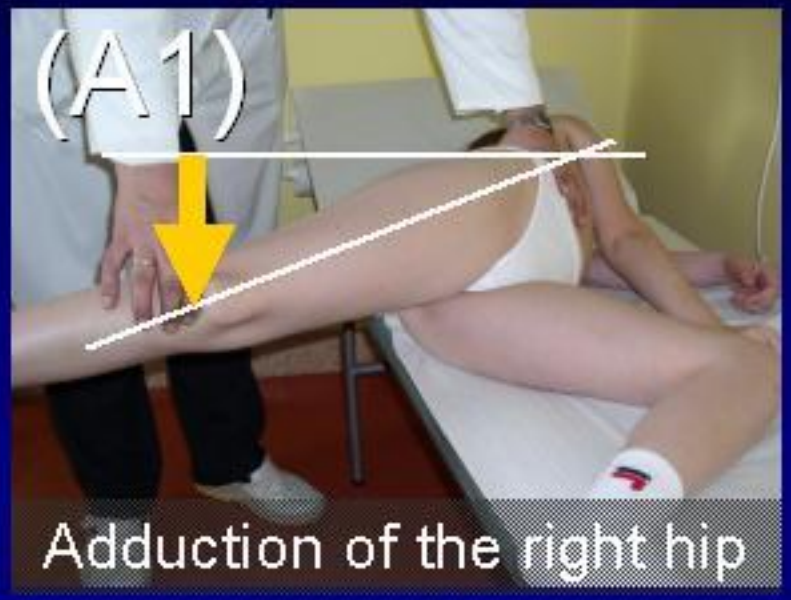
„Syndrome of contractures“ by Hans Mau

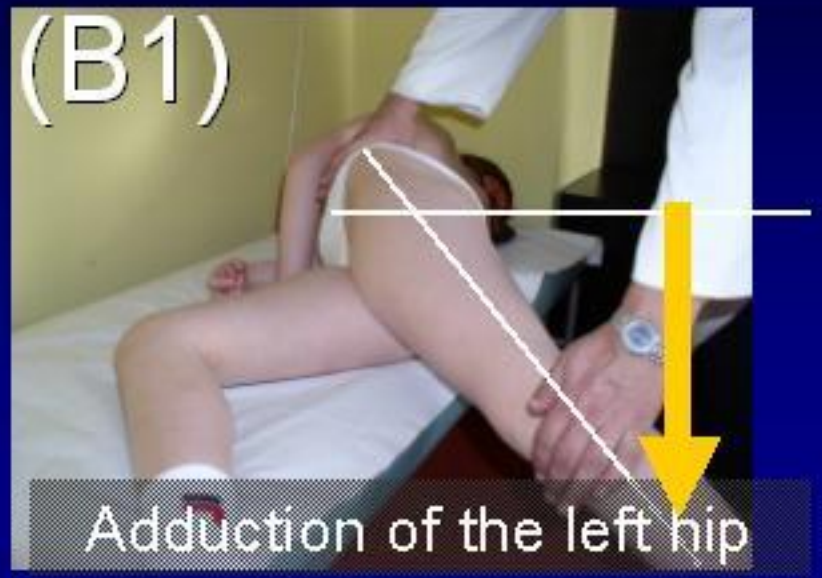
1. Scull deformity – plagiocephally
2. Torticollis – usually left sided
3. Infantile scoliosis – usually right convex lumbo-thoracis curve
4. Contracture of the left hip adductor muscles
5. Contracture of the right hip abductor muscles
6. Pelvic bone assymetry during X-ray examination
7. Feet deformities – pes equino-varus, equino-valgus, calcaneo-valgus, etc.

→ malposition in 1st fetal left sided position in uterus (Oleszcuk)

Fig. 2

Test of adduction of the hips in the „extension position of the hips" (similar to Ober test). Two methods of examination: by extended knee (A1) (B1), by flexed knee (A2) (B2) – this last more sensible.





Lublin classification of scoliosis

- Devided in to 3 groups and 4 types
- 1st epg – the add. in the right hip is limited to 0° or to (-)5° or to (-) 10°, the left side add. 30°-50° → standing and gait → „S“ scol.
- 2nd epg – A/B – only less add., limited to 15°-20°, left hip full movement 30°-50° → standing (B plus laxity) → „C“/„S“ scol.
- 3rd epg – the add. of the right hip is limited to 0° or (-) 5° or (-) 10° and in the left hip add. also limited to 0° or 10° or 20° → gait → „I“ scoliosis without scoliosis

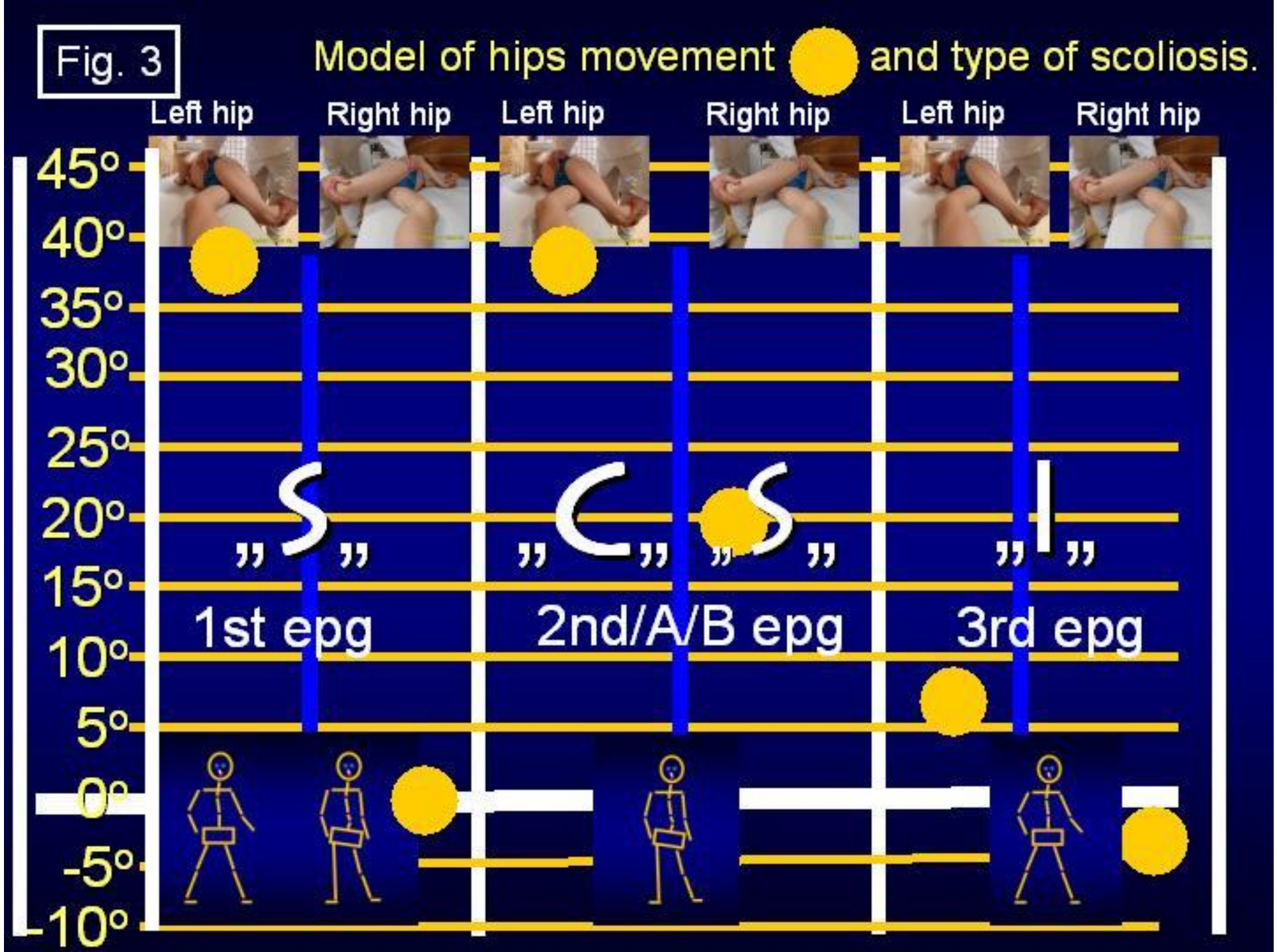


Fig. 3
Model of hips movement and type of scoliosis.
Left hip
Right hip
Left hip
Right hip
Left hip
Right hip
45°
40°
35°
30°
25°
20°
15°
10°
5°
0°
-5°
-10°
1st epg
2nd/A/B epg
3rd epg

Fig. 4 Type of scoliosis connected with the range of adduction of the hips in the 1st etio-patho-genesis [epg] group. In the picture „S" scoliosis. Causative influence: gait & standing.

„S" 1st epg

Fig. 5

„C" 2nd/A epg

Type of scoliosis connected with the range of adduction of the hips in 2nd / A etio-patho-genesis [epg] group. In the picture „C" scoliosis. Causative influence: standing.

Fig. 6

„S" 2nd/B epg

Type of scoliosis connected with the range of adduction of the hips in 2nd / B etio-patho-genesis [epg] group. In the picture „S" scoliosis. Causative influence: standing plus laxity of joints.

Fig. 7

Type of scoliosis connected with the range of adduction of the hips in 3rd etio-patho-genesis [epg] group. In the picture „I" scoliosis. Causative influence: gait. In this type – spine stiff, no curves or small.

„I" 3rd epg

Prevention and therapy

Tab. 1

Recommendations in points in prophylaxis for children endangered and with beginning of scoliosis

[1] Healthy child - standing ‘at ease’ on left, on right, on both legs – every position 33% of time
[2] A child with beginning of scoliosis – standing ‘at ease’ only on the left leg
[3] Sitting relaxed
[4] Sleeping in the embryo position
[5] Stretching exercises for hips, pelvis and spine
[6] Active participation in sport - karate, aikido, taekwondo, kung fu, yoga

Fig. 8 Incorrect exercises in therapy of the so-called idiopathic scoliosis. In results – no effect (E) or iatrogenic deformity – curves and gibbous bigger, spine stiff. (A) (B) (C) - Poland, (D) (E) - abroad - Internet

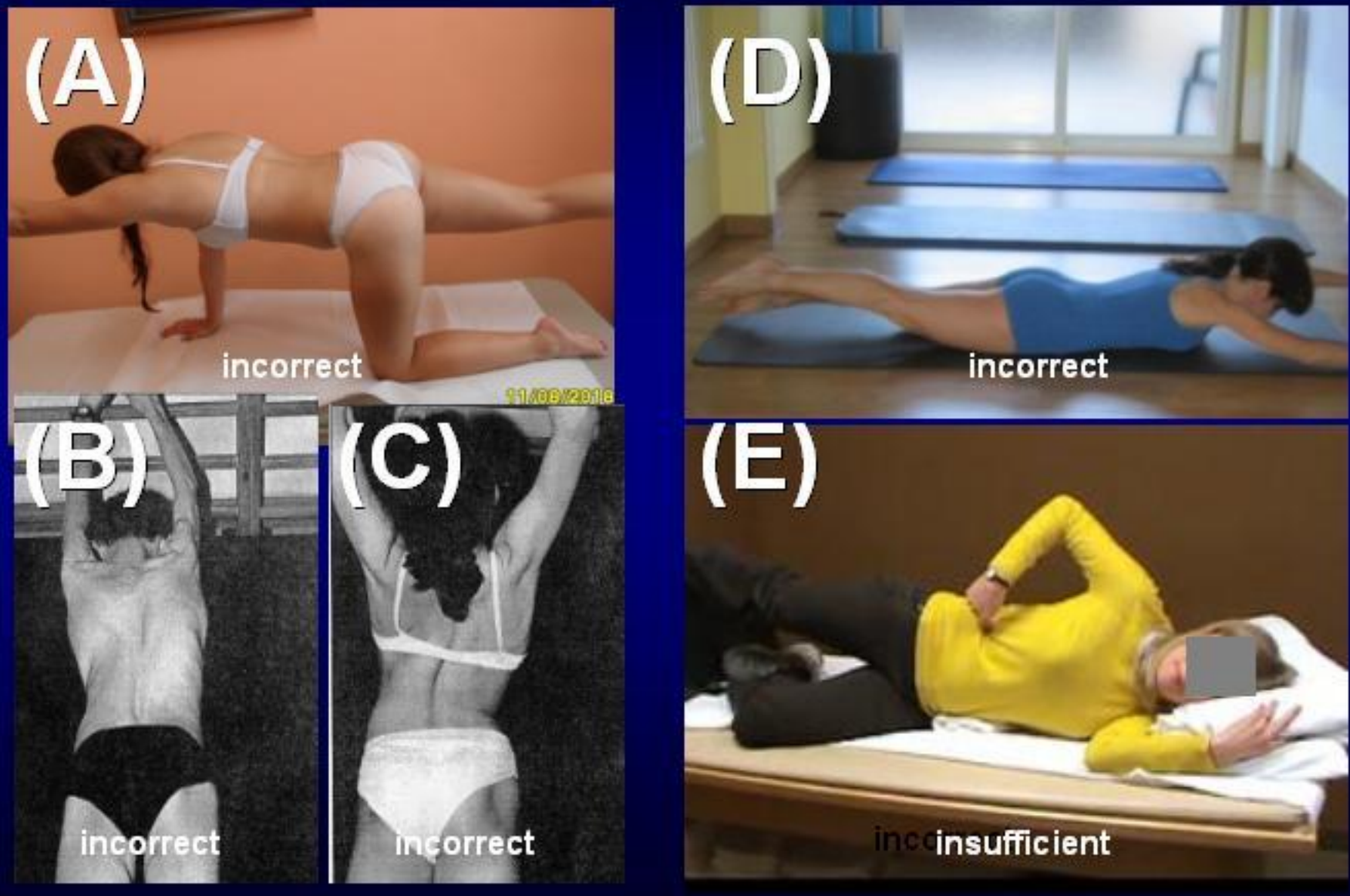
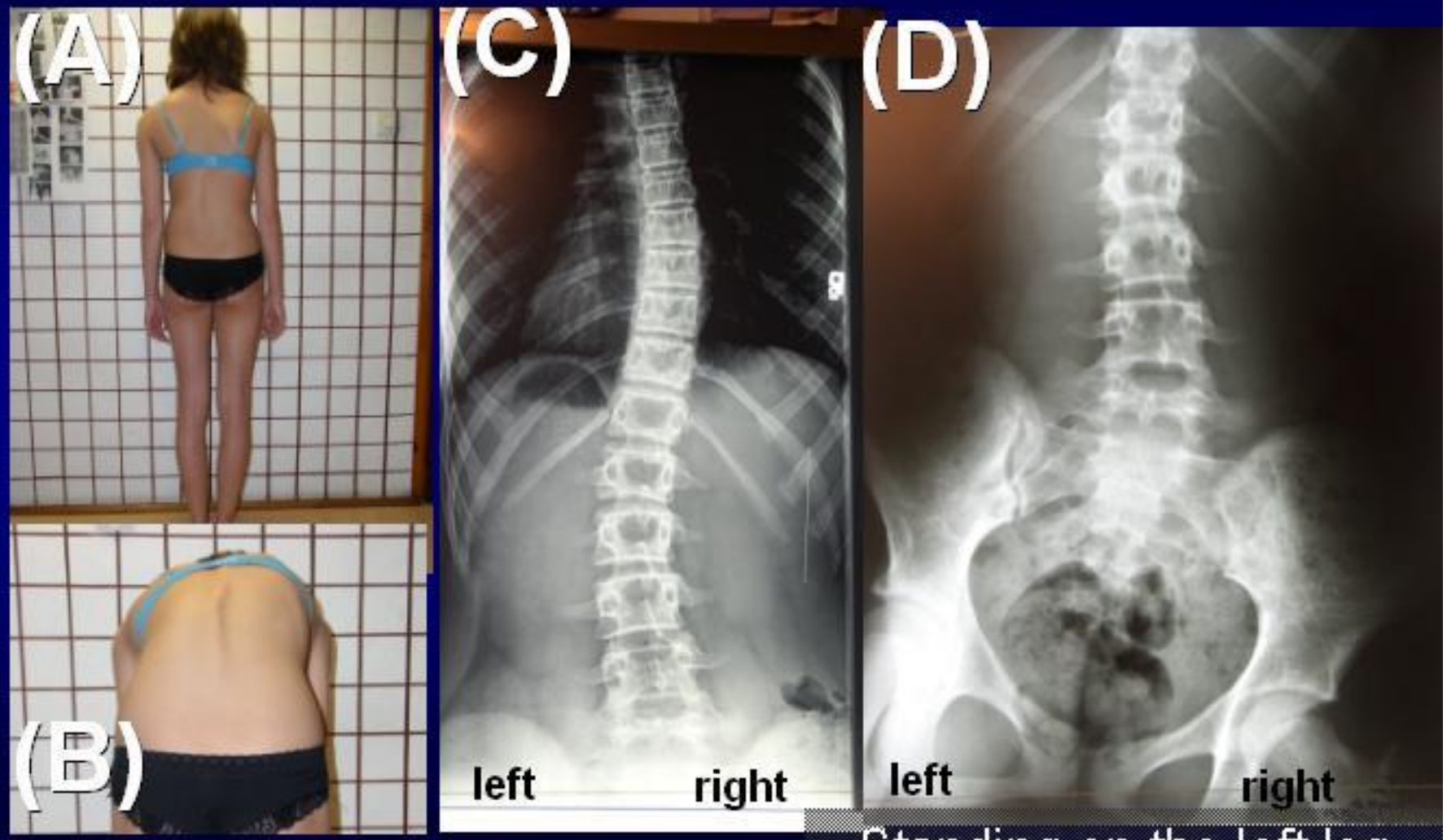


Fig. 9 Correct exercises plus sport [karate] in therapy of the so-called idiopathic scoliosis. Important standing on the left leg, never on right. This program important in treatment and in causal prophylaxis.

Fig. 10 Patient 13 y. old. Scoliosis diagnosed in 2008 (A) (B) (C). Primary wrong therapy - in result bigger curves. After consultation – proper therapy, bending exercises, sport and standing 'at ease' on the left leg – see X-ray on (D).



Discussion

- all what is described about this spine deformity in years 1995 till 2007 is confirmed in every day orthopedic practice of prof. Tomasz Karski
- new knowledge and new treatment “step by step” introduced by general doctors, orthopedic surgeons and physiotherapists
- by professors and directors / heads of departments is not recognized nor admitted
- 3rd epg. „scoliosis without scoliosis“→ no spine deformity at frontal or transversal plane, only at sagital → stiffness sy?, neurogenic?, neuromuscular? etiology

Conclusions

- 1984 – 2020 biomechanical etiology of the so-called idiopathic scoliosis → confirmed in every case
- Development and types of scoliosis is connected with pathological “model of the hip movements” → limited add. of right hip (T. Karski, 2006) and function → “standing ‘at ease’ on the right leg” and “walking”.
- Restricted ROM → “Syndrome of Contractures and Deformities” according Prof. Hans Mau and Lublin observations.
- Every type starts to develope at the age of 2-3 → standig/walking.

Conclusions

- Three groups and four types of scoliosis:
- (A) “S” scoliosis 1st epg, 3D, stiff spine, some cases – lordoscoliosis. → standing and gait.
- (B1) “C” scoliosis 2nd / A epg, 1D → standing.
- (B2) “S” scoliosis 2nd / B epg, 1D or 2D → standing, plus laxity of joints and/or incorrect exercises, some cases – kyphoscoliosis.
- (C) “I” scoliosis 3rd epg, 2D or 3D → stiffness of the spine → gait → sport problems in young age and “spine pain” in adults.

Conclusions

- Proper therapy → only stretching exercises for full ROM of the right hip, proper position of the pelvis and full ROM of the spine.
- Causal prophylaxis is possible and should be introduced in every country.
- Rules in prophylaxis → standing ‘at ease’ on the left leg, sitting relaxed, sleeping in the embryo position, sports like karate, taekwondo, aikido, kung fu, yoga and others.


Thank You for Your attention!