

Disorder in Children - Pain Syndromes in Adults - Problems of Spine, Hips, Feet - In Points and Figures

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Abstract

In the article there is described the Syndrome of Contractures and Deformities, Minimal Brain Dysfunction, etiology of So-Called Idiopathic Scoliosis with information about new classification and about old - improper and new - proper therapy. In article there are giving also the rules of prophylaxis and therapy for hips in children and in adults. It is presented also information about geothermal water in physiotherapy of locomotors system disorders and pain syndromes.

Introduction

In orthopedics it is important proper diagnosis, proper therapy - firstly - conservative - if not sufficient - surgery. The prophylaxis of pain syndromes in hips, knees, feet and spine in adults - should be started in child period of life [1-37]. For the prophylaxis of hip arthrosis - it is important to cured completely dysplasia of the hips in baby and infants period of life. In article is also given the information about - insufficiency

of feet connected with limited plantar flexion of toes and “pain syndromes” connected with improper getting out the car - on one leg / on one foot. The article described also the beneficial properties of geothermal water in therapy of orthopedic disorder [38-42]. All observations are based on material of many thousand of patients from years 1961 - 2020, but especially from years 1995 - 2021.

In contents of this publications there are presented:

- 1) Problems of Minimal Brain Dysfunction,
- 2) Syndrome of Contractures and Deformities,
- 3) Problems of hip - children and adults,
- 4) So-Called Idiopathic Scoliosis - etiology, classification, therapy - old incorrect and new - proper / correct,
- 5) Feet problems,
- 6) Geothermal water in physiotherapy,

1) Problems of Minimal Brain Dysfunction (Fig. 1) - (A) (B) (C) (D) (E) (F) (G). Very frequent - in our material about 15% of causes - anamnesis inform that the pregnancy and delivery were incorrect. Its mean - for the fetus - could be asphyxia process. In result - the neuro - pathological disorders, next changes in child's growths, next dysfunctions and pathological changes in “whole movement apparatus”. In this group of patients there are also psychological changes. In figures we present disorders in hips, pelvis, knees and feet and also symptoms of general laxity according Wynne Davies.

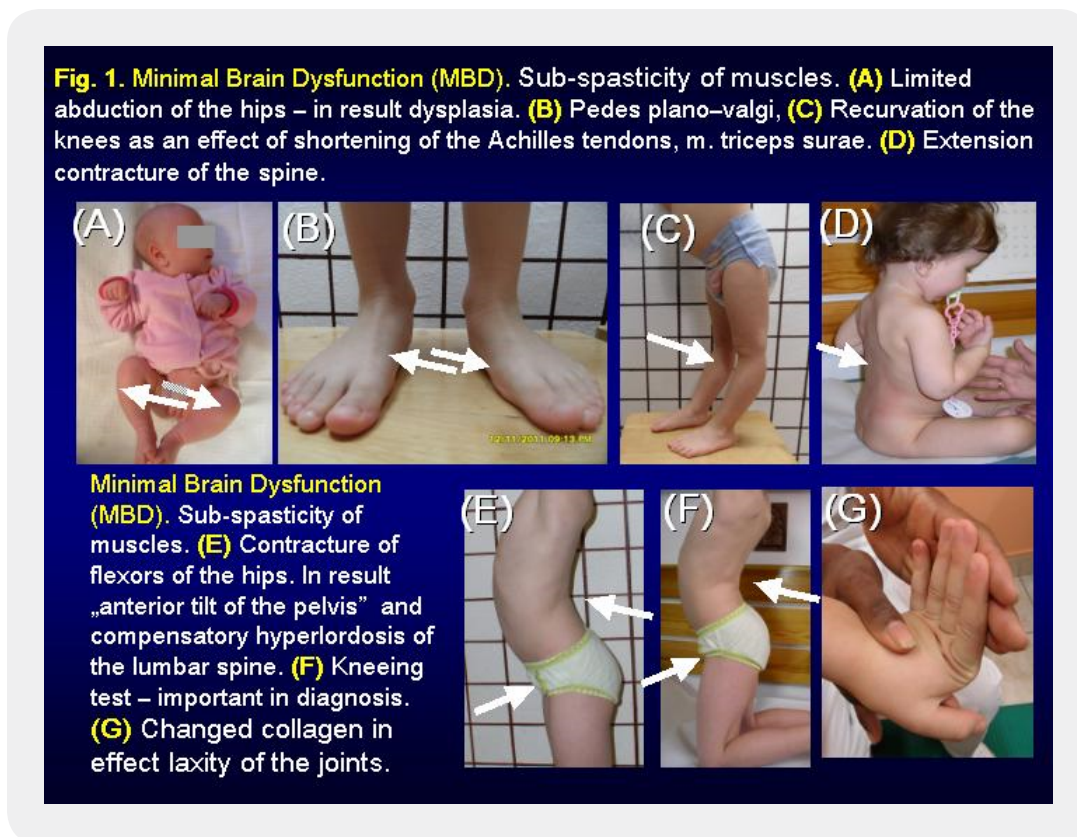


Figure 1: Minimal Brain Dysfunction (MBD). Sub-spasticity of muscles. (A) Limited abduction of the hips – in result dysplasia. (B) Pedes plano-valgi, (C) Recurvation of the knees as an effect of shortening of the Achilles tendons, m. triceps surae. (D) Extension contracture of the spine. (E) Contracture of flexors of the hips. In result „anterior tilt of the pelvis” and compensatory hyperlordosis of the lumbar spine. (F) Kneeing test – important in diagnosis. (G) Changed collagen in effect laxity of the joints.

In details there are:

- (A) Limited abduction of the hips, because of spasticity or sub - spasticity of adductors of hips - in result can develop dysplasia.
- (B) Pedes plano-valgi - compensatory deformations because of shorting of m. triceps surae and Achilles tendon,
- (C) Recurvation of the knees also as an effect of shortening of the Achilles tendons and m. triceps surae.
- (D) Sub-spasticity of extensors of trunks and in result - extension contracture of the spine.
- (E) Contracture of flexors of the hips. In result „anterior tilt of the pelvis” and compensatory hiperlordosis of the lumbar spine.
- (F) Kneeing test - important in diagnosis.
- (G) Changed collagen in effect laxity of the joints.

2) Syndrome of Contractures and Deformities (Fig. 2) - (A) (B). This pathology is connected with improper “development conditions” for fetus in pregnancy period - from mother side - wrong anatomy of pelvis, too small “amniotic water”, or from child side - too big, too long body of the child - can arise - anatomy deformations and functional asymmetry. The Syndrome of Contracture and Deformities had describe as first Prof. Hans Mau from Tübingen (Germany 1970 - 1980) as *Siebenersyndrom* (German) - its mean “Seven Contractures Syndrome” (SofC) (English). In 2006 we complete this SofC for eight deformity - “Varus deformity of shanks” and from this time our diagnosis is “Syndrome of Contracture and Deformities” (SofCD).

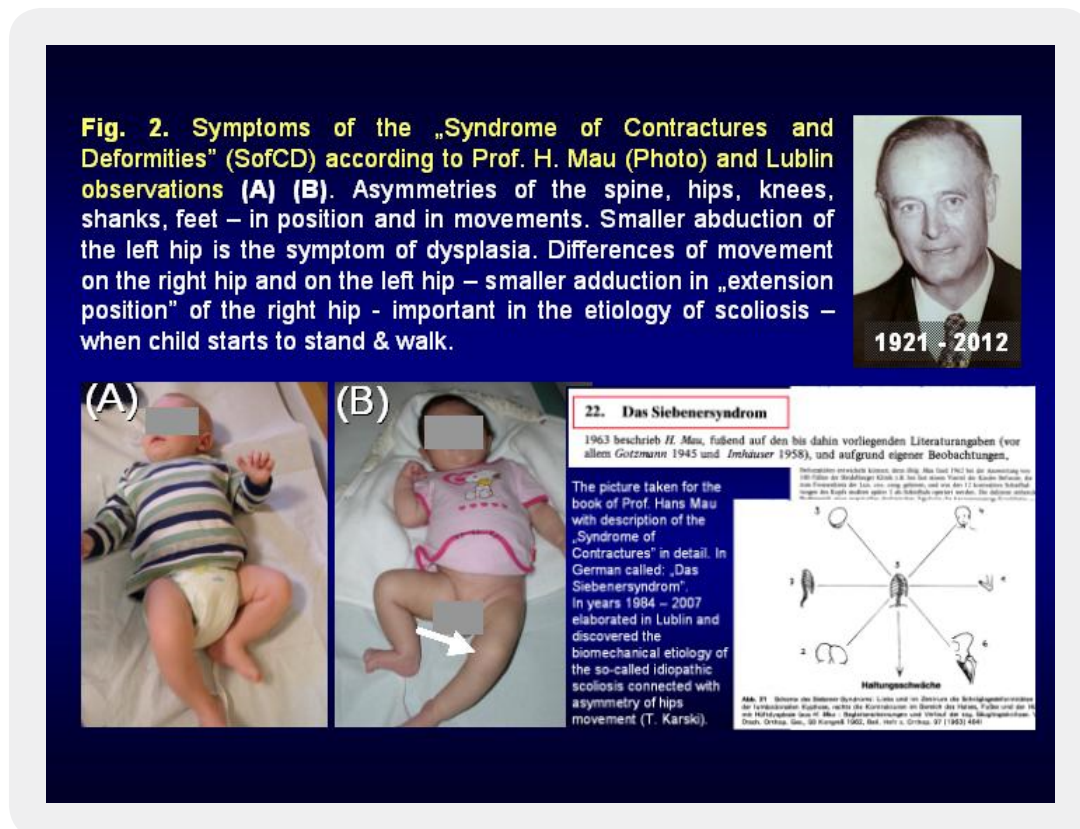


Figure 2: Symptoms of the „Syndrome of Contractures and Deformities” (SofCD) according to Prof. H. Mau (Photo) and Lublin observations (A) (B). Asymmetries of the spine, hips, knees, shanks, feet - in position and in movements. Smaller abduction of the left hip is the symptom of dysplasia observed in many children in Poland and in other countries. Why left hip is more frequent affected - because 90 % or 95% of fetus are placed on the left side of mother uterus (observation of gynecologists).

The are following symptoms in the “Syndrome of Contractures and Deformities” (SofCD) according to Prof. H. Mau (Photo) and Lublin knowledge: asymmetries of the spine, hips, knees, shanks, feet - in position and in movements. Smaller abduction of the left hip is the symptom of dysplasia observed in many children in Poland and in other countries. Why left hip is more frequent affected - because 90 % or 95% of fetus are placed on the left side of mother uterus (observation of gynecologists).

Differences of movement on the right hip and on the left hip - smaller adduction in „extension position” of the right hip - important in the etiology of scoliosis - when child starts to stand & walk. These problems are presented and described in next subchapters.

3) Hips - Children - Information about Proper and Improper Nursery (Literature 1-37).

A) Symptoms of the “Syndrome of Contractures and Deformities” (SofCD) according to Prof. H. Mau and Lublin knowledge - explain many of deformations in children and adults. Very often we observe limitation of the adduction mostly in left hip (Fig. 2). If the child is not treated or incorrect treated can develop dysplasia or even dislocation of the femoral head (Luxatio coxae). Differences of movement right: left hip-smaller adduction in „extension position” of right hip - there are important in the etiology of scoliosis (described by T. Karski in 1995 - 2007) - when child starts to stand & walk and this problems is fully described in next subchapters. (Fig. 8, 9, 10).

B) Wrong way of carrying of children - without abduction of hips - is the cause of improper development of hips and even cusses to dysplasia. Such carrying is recommended by “poorly” educated or “over - educated” doctors in many countries in Europe. Pictures are taken in Poland - left and abroad - in the middle and on right (Fig. 3) - (A) (B) (C).



Figure 3: Wrong way of carrying a child – no abduction of the hips. Danger of development of dysplasia. Such carrying is recommended by „poorly” educated or “over – educated” doctors in many countries in Europe. Pictures taken in Poland (A-left) and abroad (in the middle-B and on right-C).

C) The correct way of carrying a child its mean assurance for good development of hips. Its mean - prophylaxis of the hips dysplasia (Fig. 4) - (A) (B). Proper therapy of the wry neck (Fig. 4) - (C). Permanent rotation stretching of the head to the wry neck side is only proper method of therapy. Articles about this treatment were published in Germany and in USA [T. Karski 1991 & 2017].

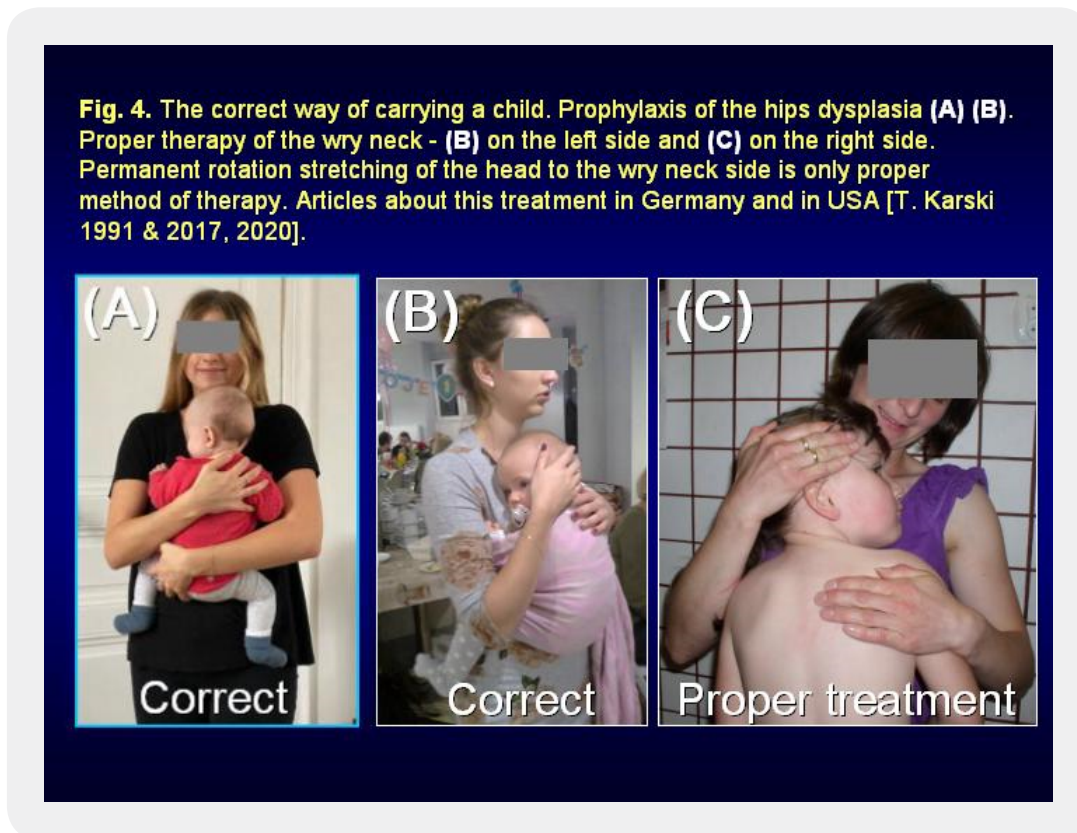


Figure 4: The correct way of carrying a child. Prophylaxis of the hips dysplasia (A) (B). Proper therapy of the wry neck - (B) on the left side and (C) on the right side. Permanent rotation stretching of the head to the wry neck side is only proper method of therapy. Articles about this treatment in Germany and in USA [T. Karski 1991 & 2017, 2020].

4) Problems of Hips - Adults.

A) If in child's period of the life the hips are not treated perfectly - develop arthrosis - in this case in the left hip with heavy symptoms - lateral position of the femoral head, deformations of the head, pain, limping (Fig. 5) - (A). In the Figure 5 - (B) the process of arthrosis is in both hips - in right hip because of permanent standing 'at ease' on the right leg. (Fig. 5) - (B). The Syndrome of Standing 'at ease' on the Right Leg is described by T. Karski in 1997 (References 8 - 37).

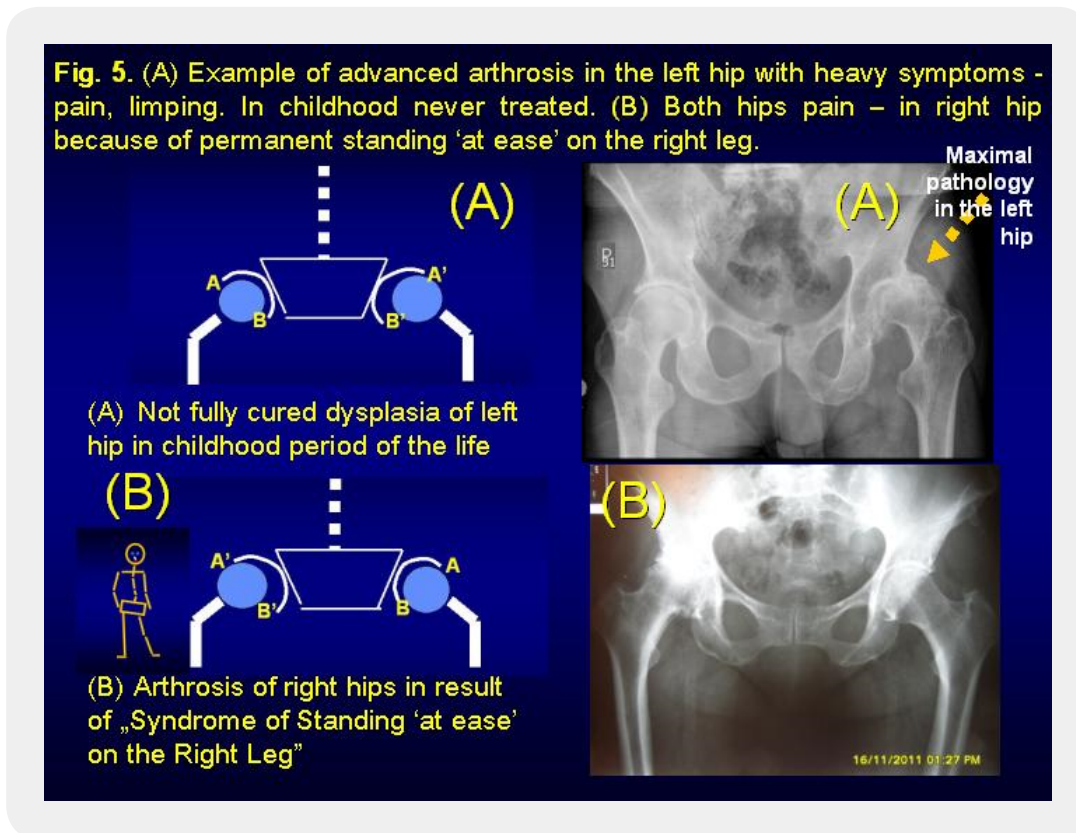


Figure 5: (A) Example of advanced arthrosis in the left hip with heavy symptoms - pain, limping. In childhood never treated. (B) Both hips pain - in right hip because of permanent standing 'at ease' on the right leg.

B) In prophylaxis and in therapy of hips arthrosis there is important standing. On the picture there are presented physiotherapy methods for prophylaxis of arthrosis of the hips. A special form of standing and sitting should be introduced at the age of 45 - 50. Standing in abduction and in internal rotation changes the loading on the femoral heads, enables regaining internal rotation. Such standing - should be perform - every day in every situation over many years (Fig. 6) - (A) (B).

Fig. 6. Standing. Methods of physiotherapy as prophylaxis of arthrosis of the hips. A special form of standing and sitting should be introduced at the age of 45 – 50. Standing in abduction and in internal rotation, like in karate changes the loading on the femoral heads, enables regaining internal rotation. Such standing - every day in every situation over many years is very beneficial.



Figure 6: Standing. Methods of physiotherapy as prophylaxis of arthrosis of the hips. A special form of standing and sitting should be introduced at the age of 45 – 50. Standing in abduction and in internal rotation, like in karate changes the loading on the femoral heads, enables regaining internal rotation. Such standing – every day in every situation over many years is very beneficial.

C) In prophylaxis and in therapy of hips arthrosis there is important also sitting. On pictures / figures is proposed the methods of physiotherapy as prophylaxis of arthrosis of the hips. A special form of standing and sitting should be introduced at the age of 45 - 50. Sitting - in internal rotation, what increases the range of this movement. Patients should sit in this position every day in every situation. Sport in the form of “Nordic walking” is also very important (Fig. 7) - (A) (B) (C) (D) (E).

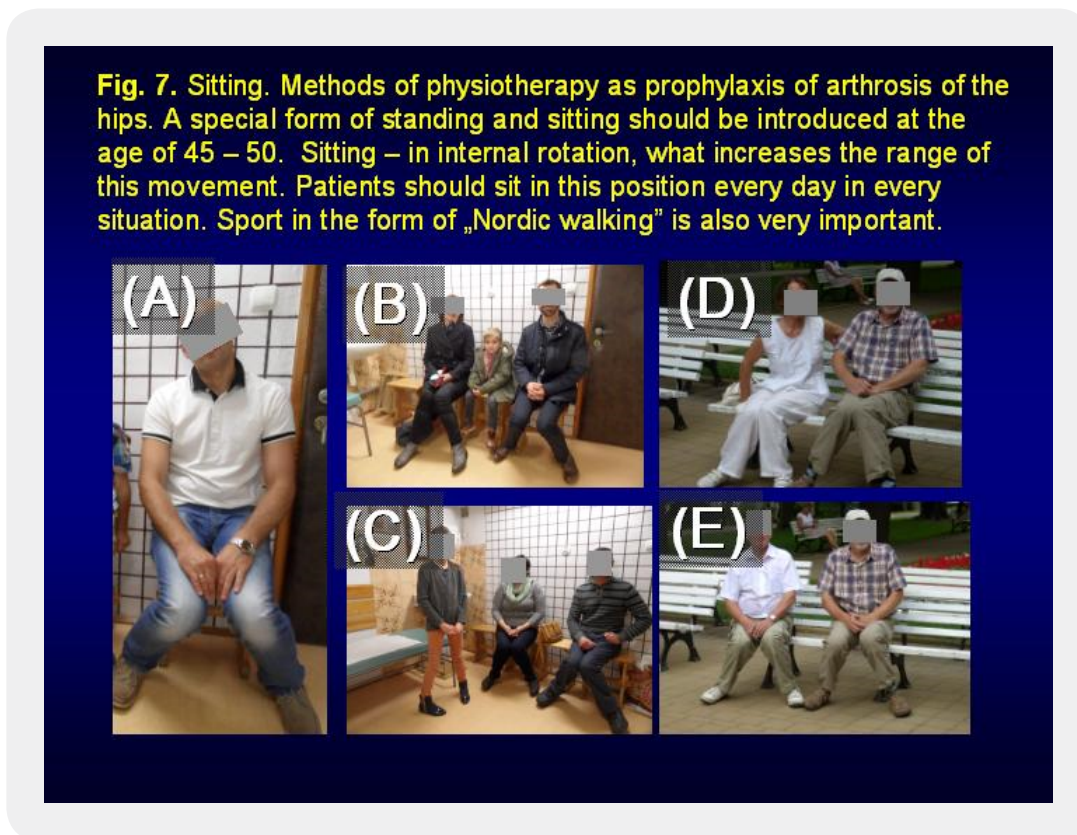


Figure 7: *Sitting. Methods of physiotherapy as prophylaxis of arthrosis of the hips. A special form of standing and sitting should be introduced at the age of 45 – 50. Sitting – in internal rotation, what increases the range of this movement. Patients should sit in this position every day in every situation. Sport in the form of „Nordic walking” is also very important.*

5) So-Called Idiopathic Scoliosis

In long years of observations (1984 - 2007) and research especially in years 1995 - 2007 - was described the biomechanical etiology of the So-Called Idiopathic Scoliosis (T. Karski). Explanation of the developmental of this spine deformity is connected with “asymmetry of movement of hips” - left versus right and next with function “standing ‘at ease’ on the right leg” and walking. There are 3 groups & 4 types.

Groups (Fig. 8) - (A) (B) (C):

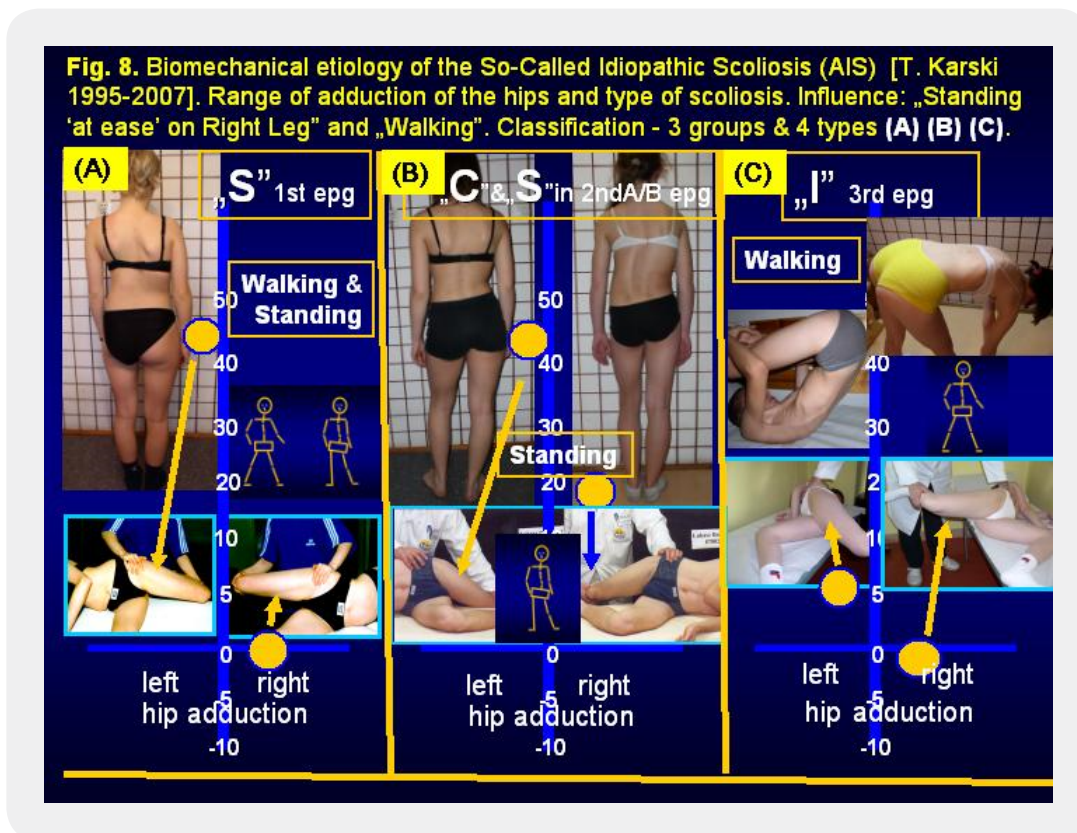


Figure 8: Biomechanical etiology of the So-Called Idiopathic Scoliosis (AIS) [T. Karski 1995–2007]. Range of adduction of the hips and type of scoliosis. Influence: “Standing ‘at ease’ on Right Leg” and “Walking”. Classification – 3 groups & 4 types (A) (B) (C).

A) Gait & Standing ‘at Ease’ on the Right Leg is the cause of “S” scoliosis, 3D – stiff spine, two curves, rib hump on right side of thorax.

B) Standing ‘at Ease’ on the Right Leg is the cause of “C” and “S” scoliosis, 2D or 3D. Flexible spine. In “S” scoliosis in etiology additionally laxity of joints or / and incorrect previous therapy.

C) Gait is the cause of “I” scoliosis 2D or 3D – stiff spine, No or small curves. In 2004 included to scoliosis group / type in Lublin classification.

6) So-Called Idiopathic Scoliosis. Example of wrong and harmful exercises (Fig. 9) – (A) (B) (C) (D). After such incorrect therapy and in the case (D) also surgery – iatrogenic deformity, big curves, big rib hump and maximally stiff spine.

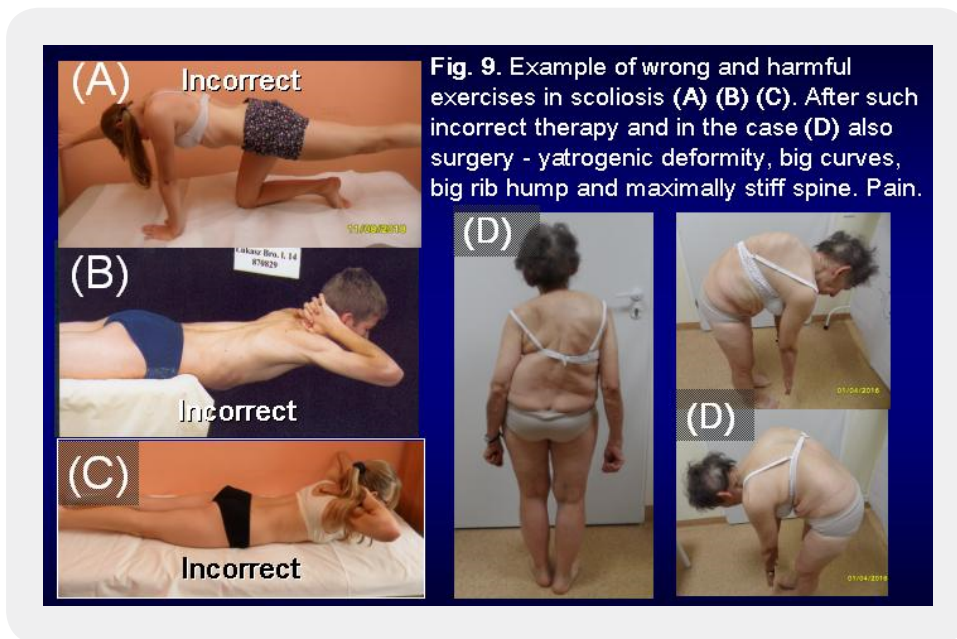


Figure 9: Example of wrong and harmful exercises in scoliosis (A) (B) (C). After such incorrect therapy and in the case (D) also surgery - yatrogenic deformity, big curves, big rib hump and maximally stiff spine. Pain.

7) So-Called Idiopathic Scoliosis. Stretching exercises are proper for scoliosis. Important standing only on the left leg & sport - karate, taekwondo, aikido, kung fu, yoga from first years of child's life (Fig. 10).



Figure 10: Stretching exercises are proper for scoliosis. Important standing only on the left leg & sport - karate, taekwondo, aikido, kung fu, yoga.

8) In Podologia (Fig. 11) - (A) (B) (C) (D) (E) (F) important proper shoes. (A) and (B) shoes improper - (A) reduce dorsal flexion in ankle joint and (B) reduce the plantar flexion of toes in metatarsal phalange joints. In effect - pain, difficulties in walking. In photos (C) and (D) proper exercise for toes. In picture (E) improper getting out of the car - one leg - in result rotation distortion of ankle joint and knee. Pain, swelling and difficulties in walking. In picture (F) proper getting out of the car- two legs. Publication about this subject in USA, India, Czech Republic (2016 - 2021). See www.ortopedia.karski.lublin.pl point 17.

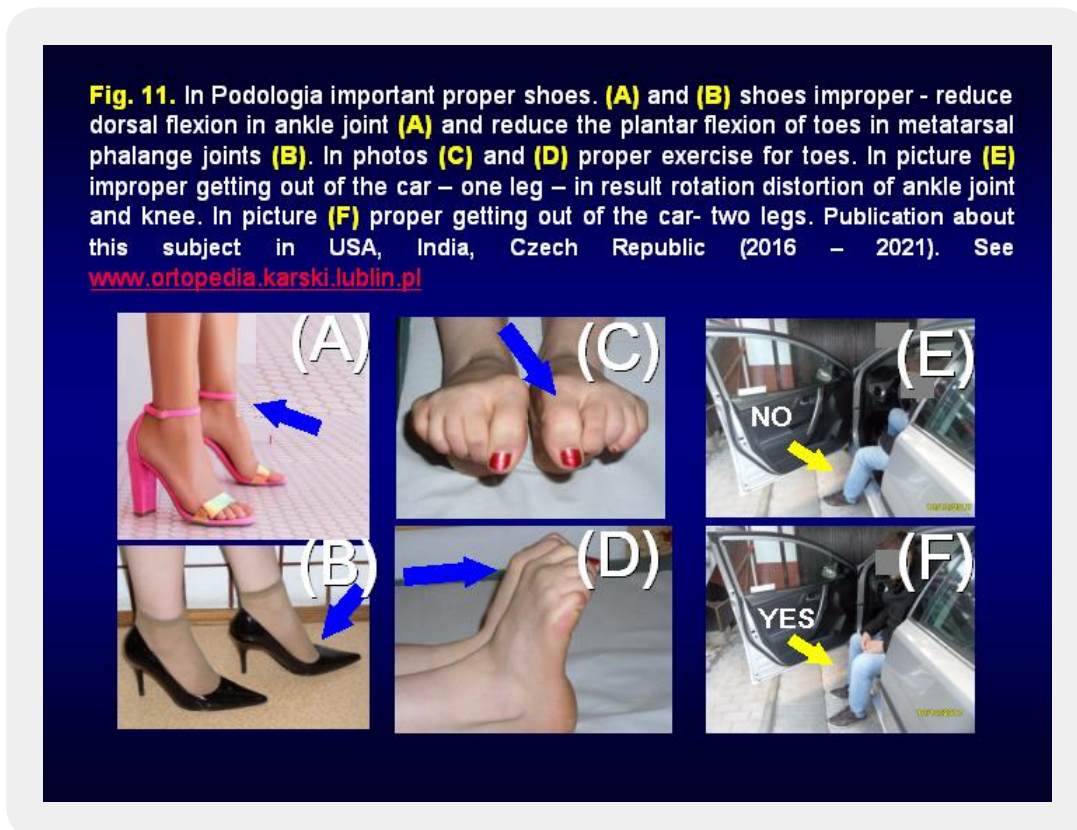


Figure 11: In Podologia important proper shoes. (A) and (B) shoes improper - reduce dorsal flexion in ankle joint (A) and reduce the plantar flexion of toes in metatarsal phalange joints (B). In photos (C) and (D) proper exercise for toes. In picture (E) improper getting out of the car - one leg - in result rotation distortion of ankle joint and knee. In picture (F) proper getting out of the car- two legs. Publication about this subject in USA, India, Czech Republic (2016 - 2021). See www.ortopedia.karski.lublin.pl

9) Map of Poland (Fig. 12). Colored fields - geothermal waters. White fields - geothermal area not recognized. Prepared by: R. Ney, J. Sokołowski. J. Zimny. In physiotherapy especially important and profitable are exercises in geothermal water. Geothermal Rehabilitation Centers - will be the future for Poland.

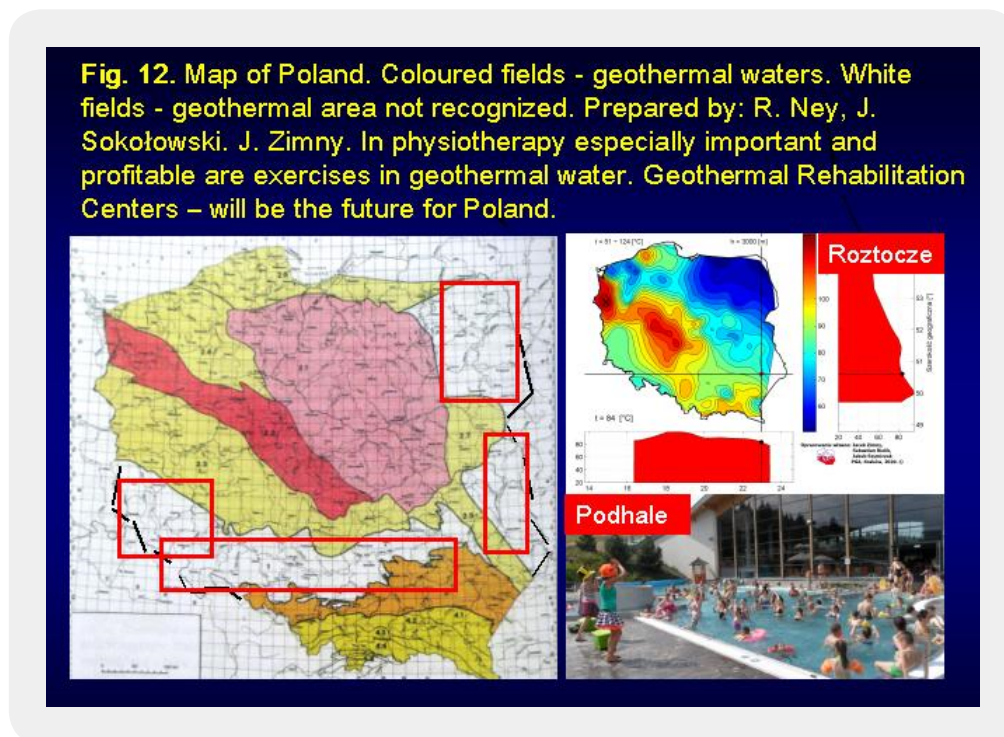


Figure 12: Map of Poland. Coloured fields - geothermal waters. White fields - geothermal area not recognized. Prepared by: R. Ney, J. Sokołowski. J. Zimny. In physiotherapy especially important and profitable are exercises in geothermal water. Geothermal Rehabilitation Centers – will be the future for Poland.

10) Discussion and Conclusions: Many of older ill people have the symptoms of hips arthrosis or back pain or knee pain syndrome, many of youths persons have scoliosis. The prophylaxis of dysplasia of hips is very important, because it is the first step in prevention of hip arthrosis in adults age. Proper carrying of children is very important - it is best prophylaxis against dysplasia and next arthrosis. Unfortunately the proper caring of a children is till now not sufficient “admitted and understandable” by many doctors and parents in the world, mostly in Europe.

Already 27 years I present (T. Karski) the biomechanical etiology of the so-called idiopathic scoliosis. The explanation in Poland is also “not sufficient admitted and not understandable”. But I am and co-authors too - full of “good thought and idea” and we hope - this article will be “one important input / step in new knowledge” of both problems - hips and spine - and will transmitted from Canada to other countries. Also the information - about getting out from the small cars - will protect many people before the ankle joint and knee pain syndromes.

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