


OZONOTHERAPY & POSTUROLOGY

Madrid , Jun. 2010

Dr. STEFAN TIRON





Posturology - studying involved systems in regulating human posture , both in statics and dynamics.

1865 – Claude Bernard – “Introduction to the study of experimental medicine ”

- Salpetriere Hospital, led by Jean-Martin Charcot: the emergence of clinical neurology

1870 – Vierordt

1904 – Pierre Bonnier

1916 – Joseph Babinski

- Neurology Society meeting chaired by Pierre Marie, the subject of "Symptoms of cranio-cervical trauma at soldiers"

1955 – prof. Jean-Bernard Baron – “Lack of proportionality ”

1970 – Nashner la Cambriedge – “Thesis on postural control ”

- Bourdiol - proprioception insoles

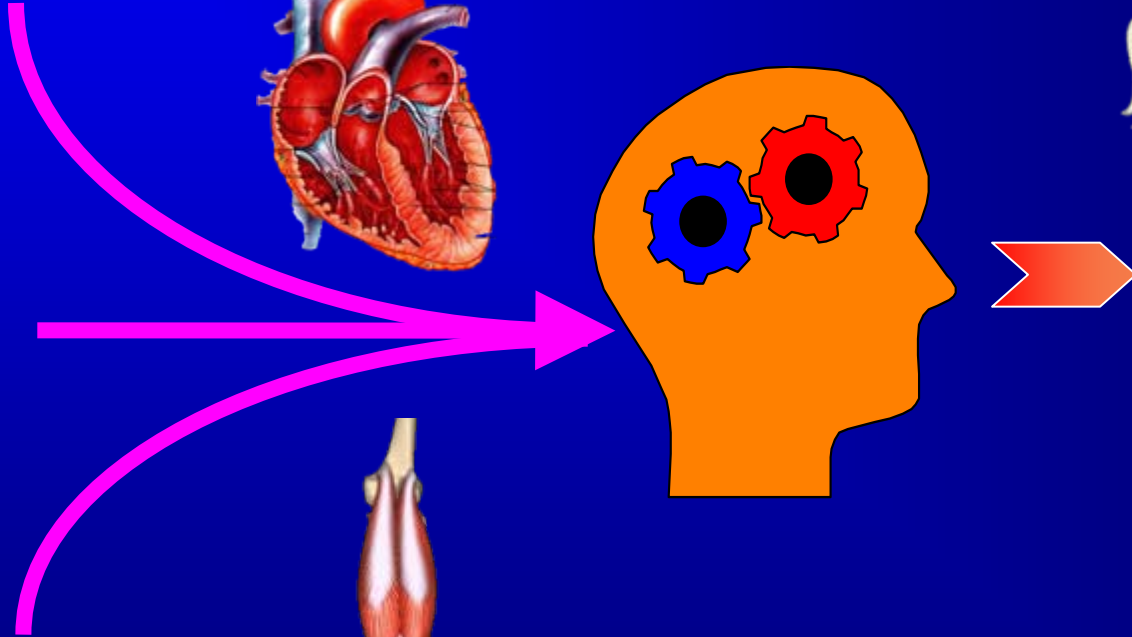
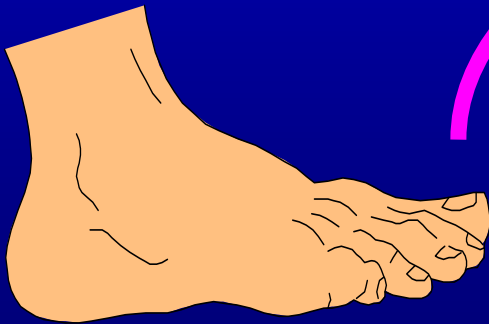
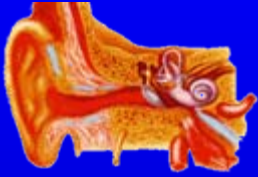
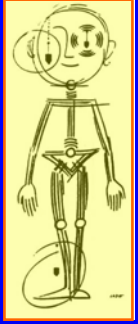
1980 – Fournier - stomatology

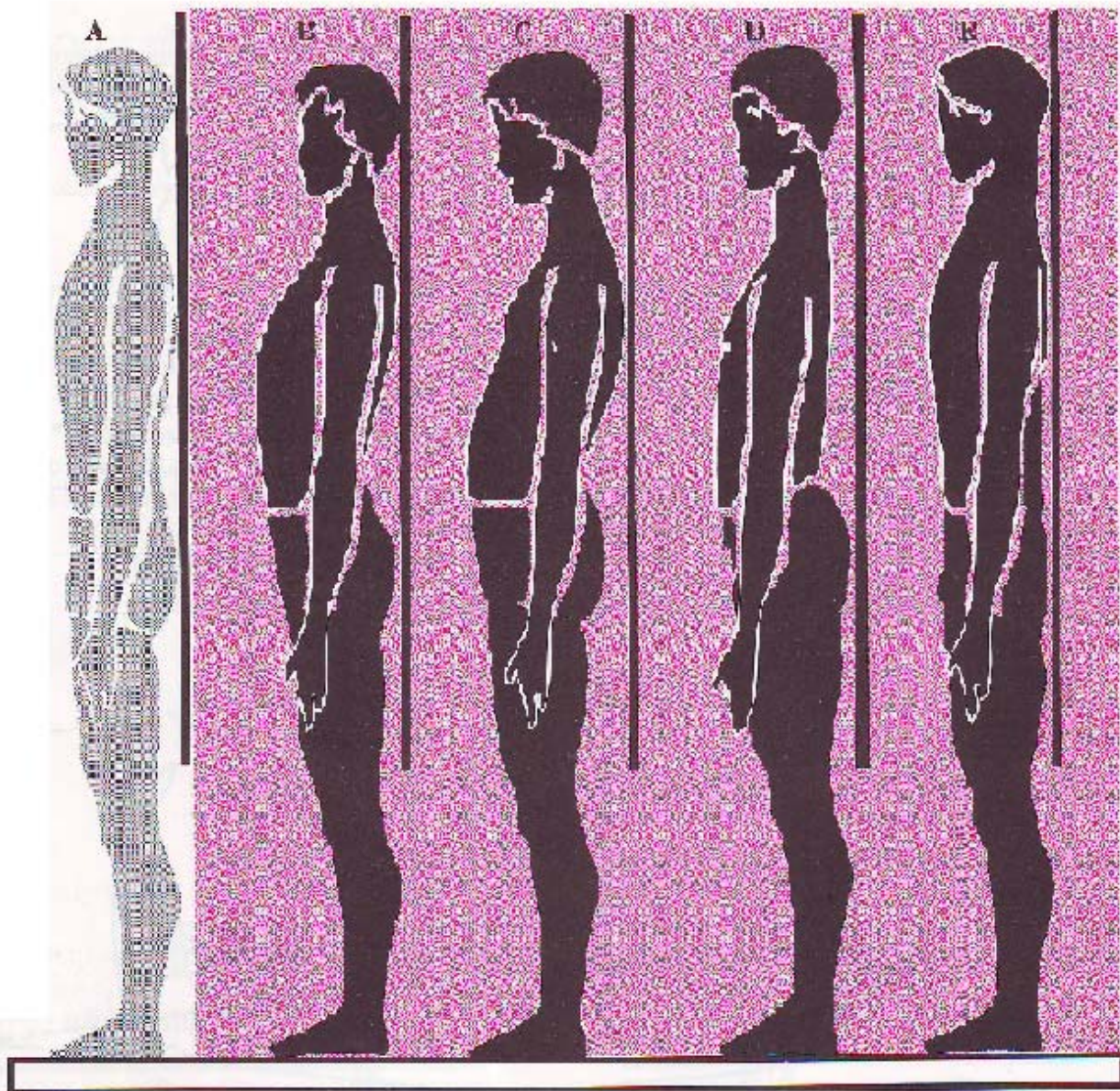
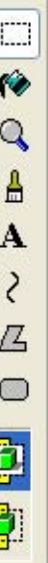
1992 – **Gagey** & Martinerie - Non-linear dynamic systems

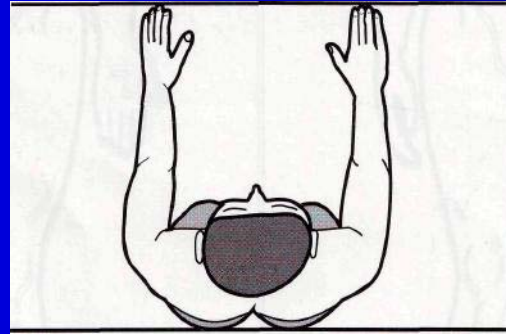
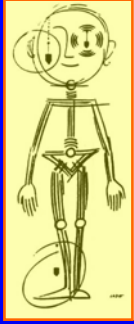
$$\underline{X(t)=Q \times X(t-1)[1-X(t-1)]}$$

1993 – Lorenz

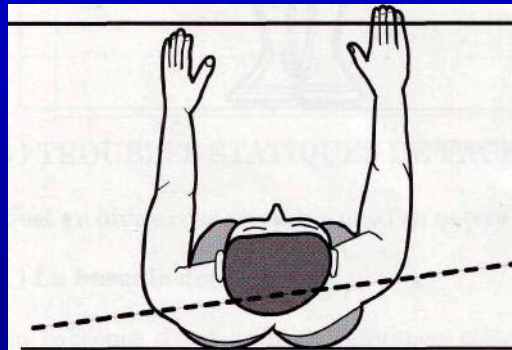
Postural system



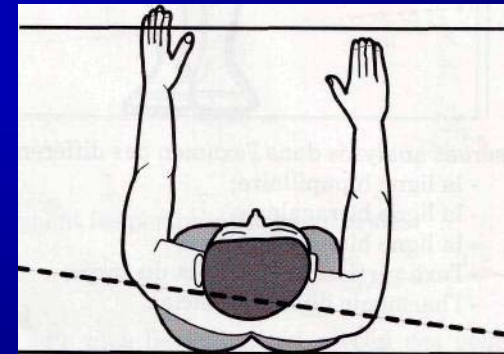




Normal



Right-hand

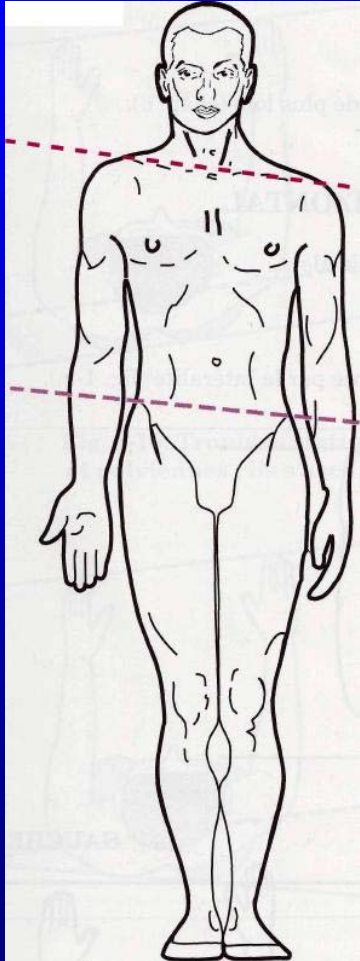


Left-hand

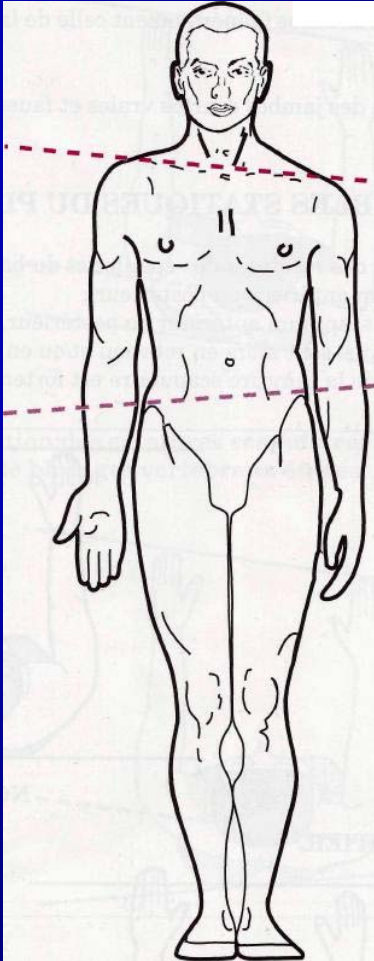
Leaning fowards and rotations show every time that a sensor is asymmetrically disturbed .

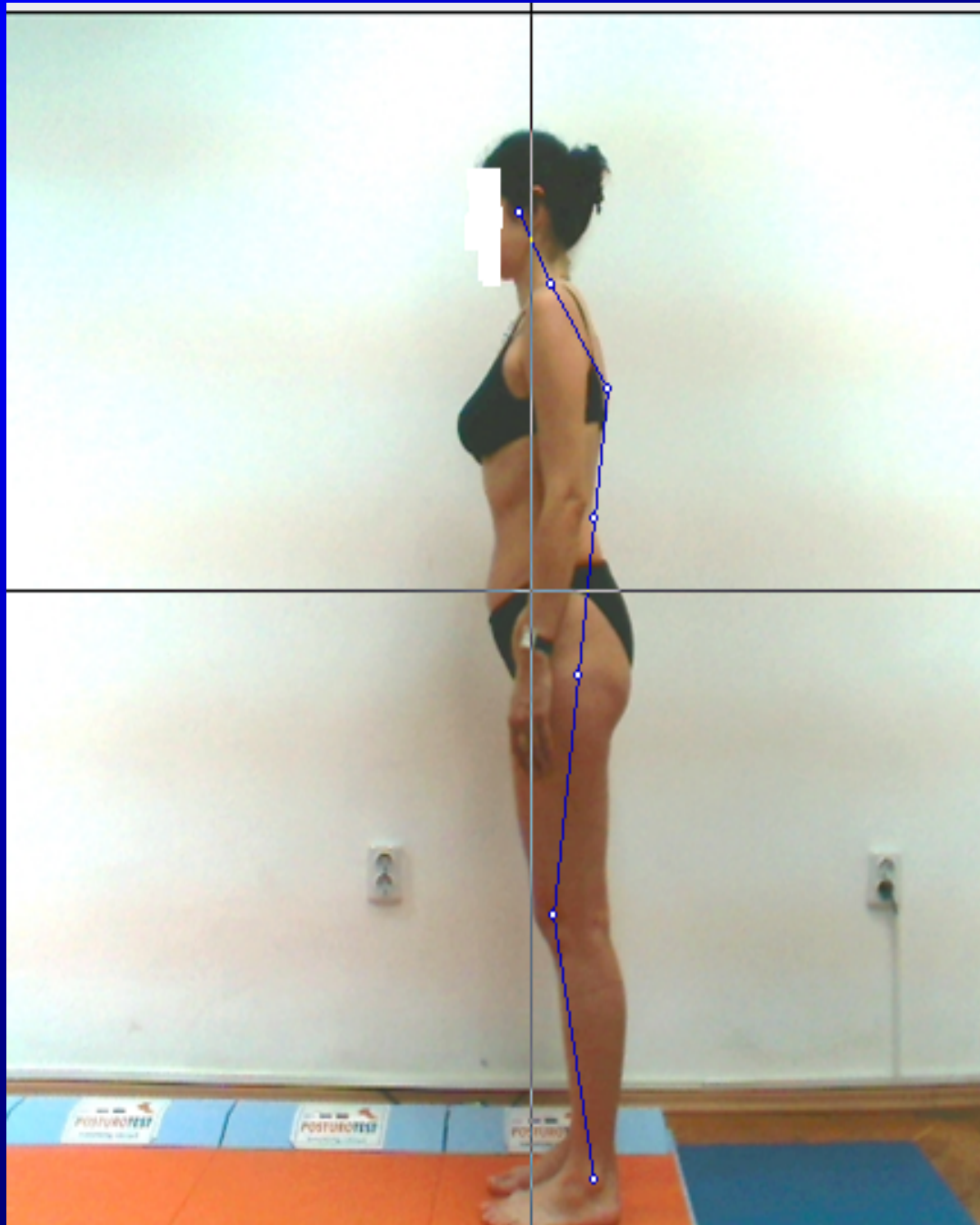
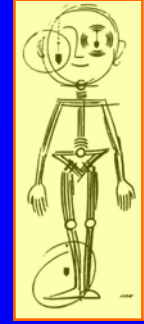


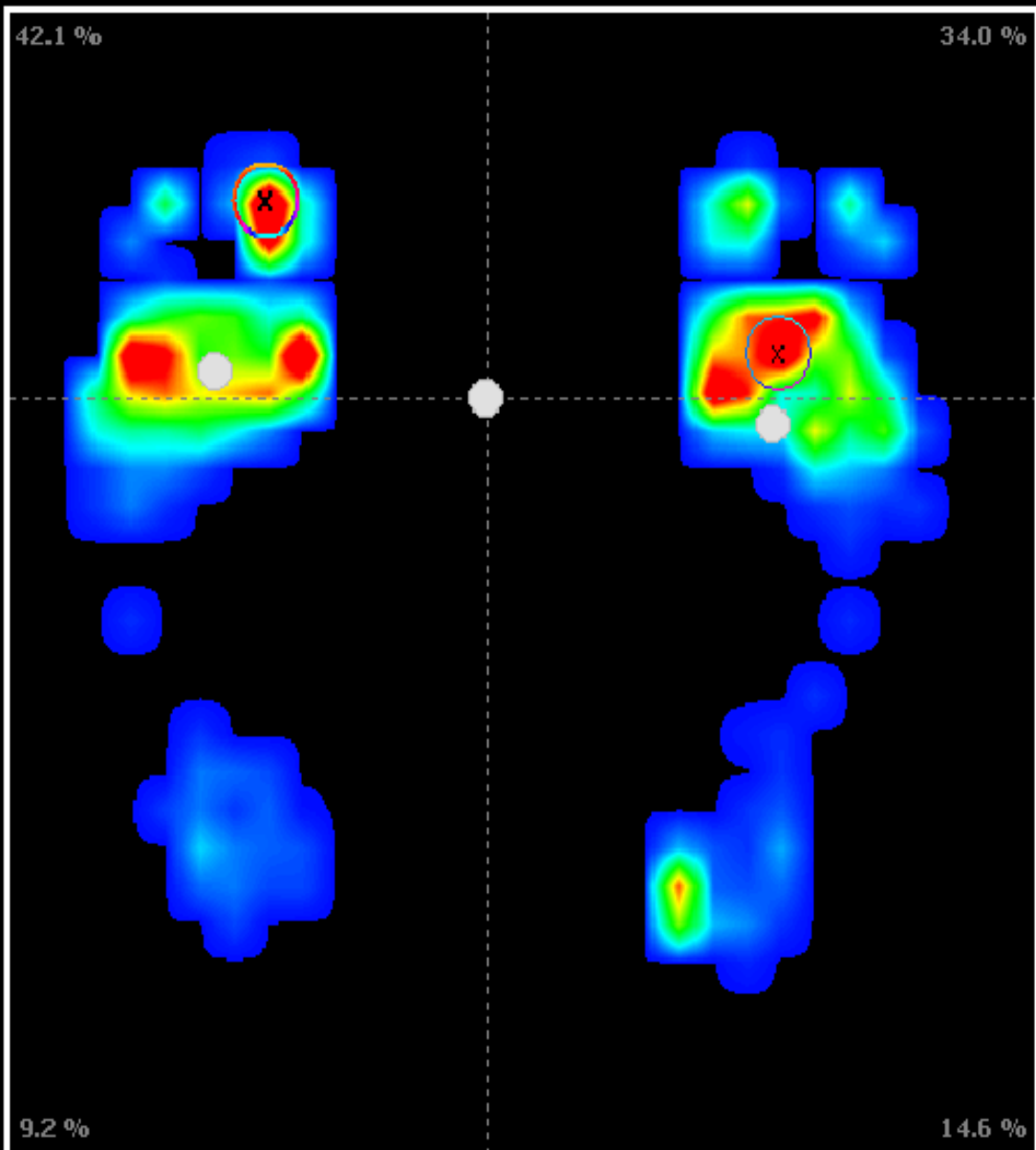
Homolateral imbalance



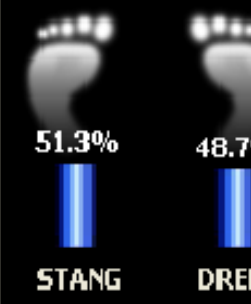
Controlateral imbalance





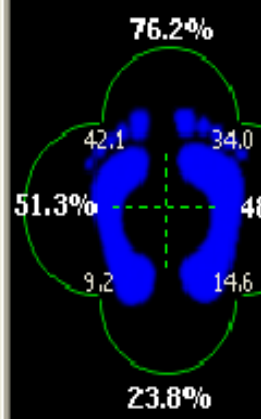


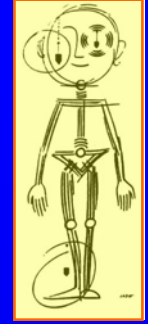
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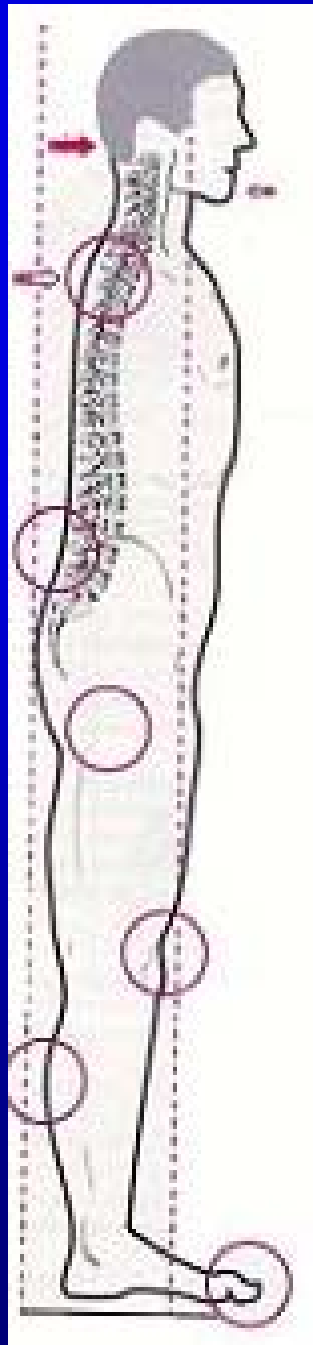
Pres. Medie
47.6 kPa(r) 45.8 kPa(r)

Suprafete
65.0 Cm² 64.0 Cm²



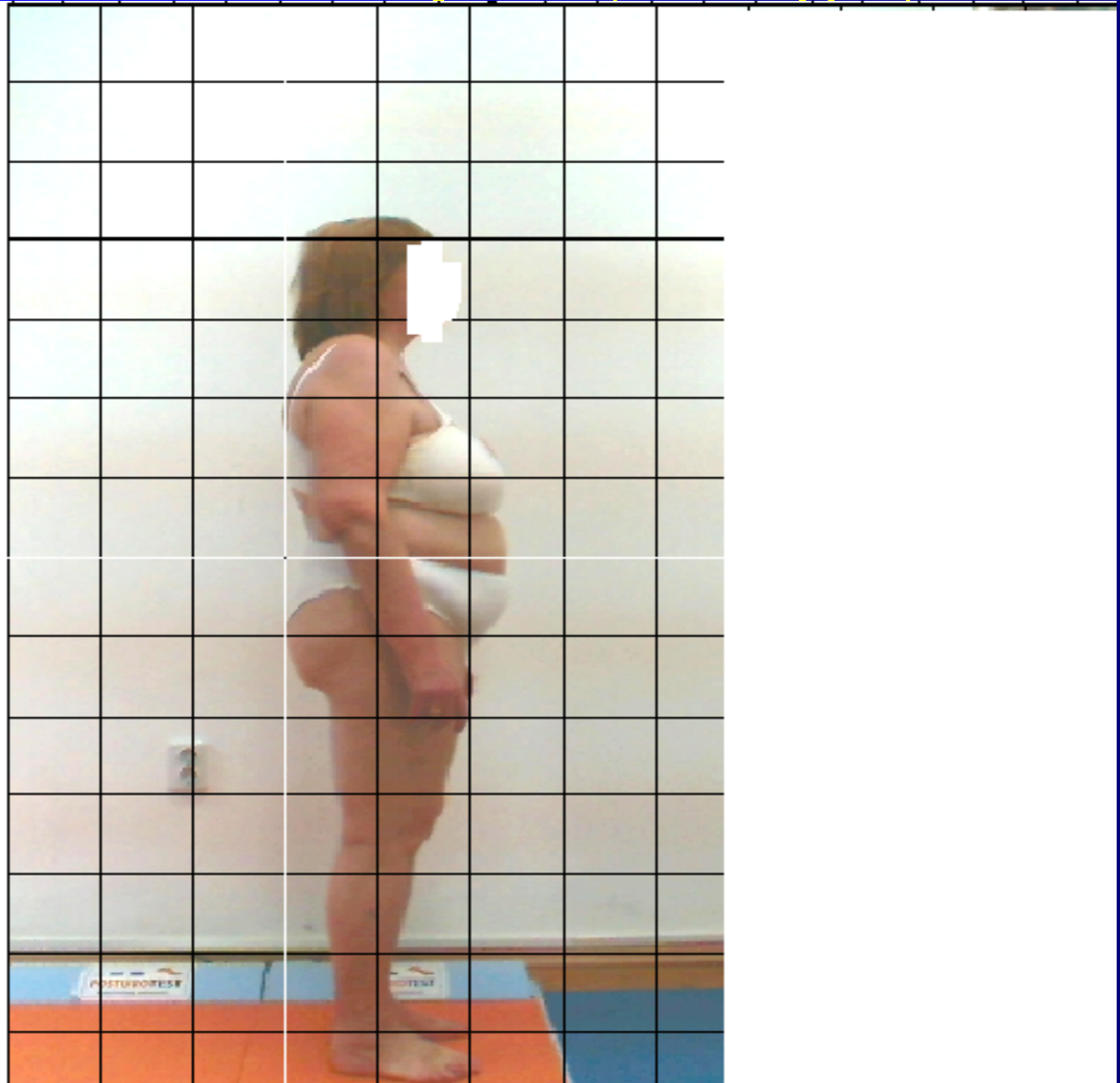


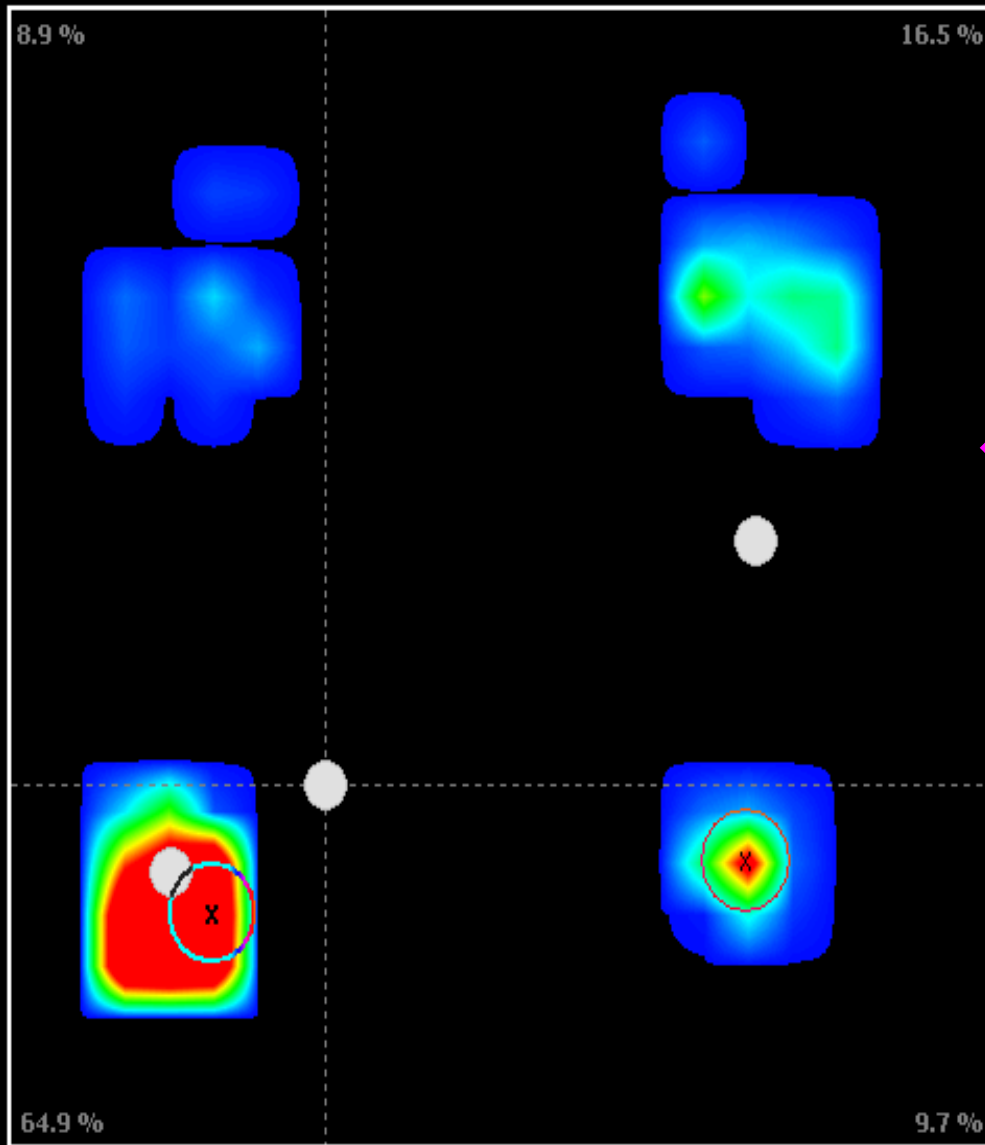
◆ Lining
forward





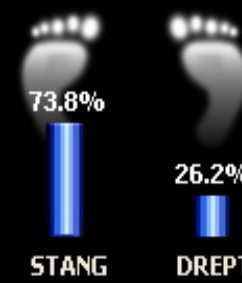
Left heel pain (talalgia)



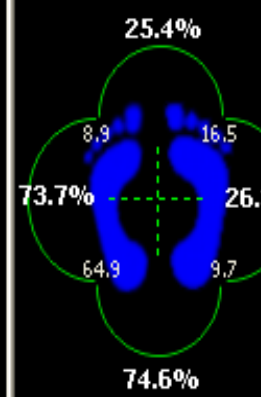


◆ Linning backward

>> Date obtine...



Pres. Medie	
91.5 kPa(r)	32.6 kPa(r)
Suprafete	
24.0 Cm ²	24.0 Cm ²

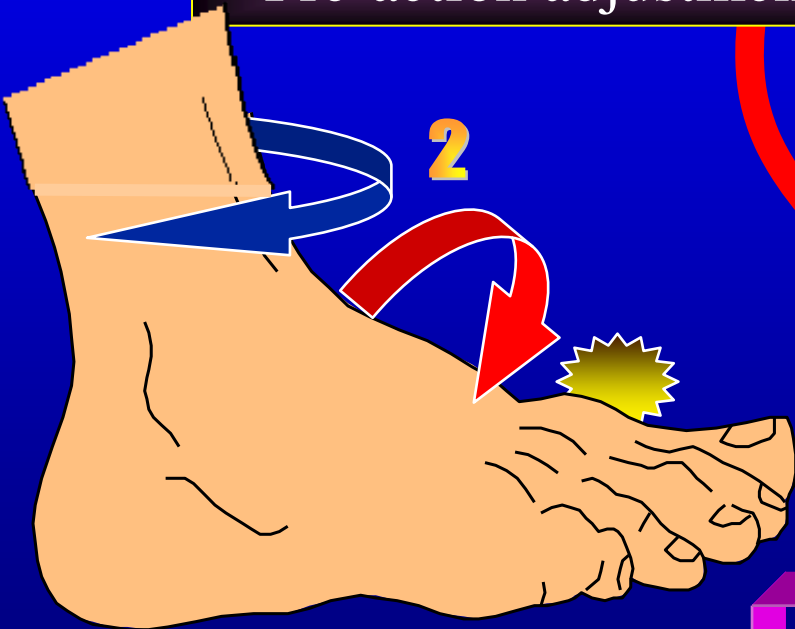




Informational dysfunctions & positional changes

Podal instability
Pre-action adjustment

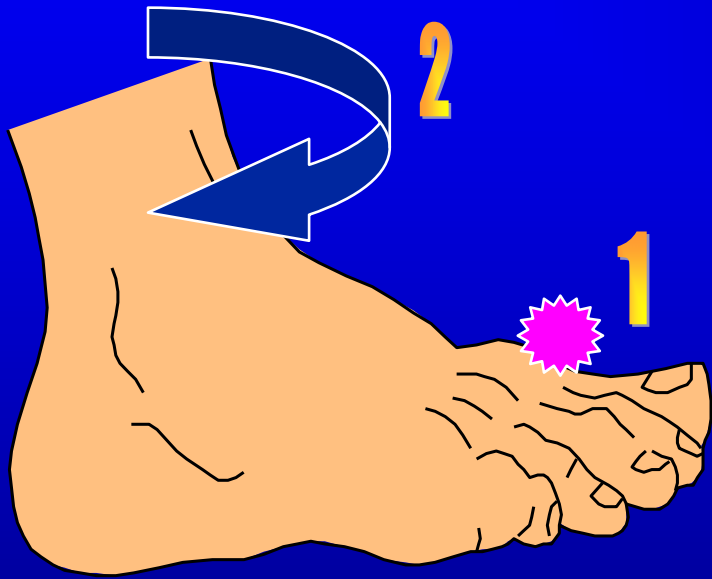
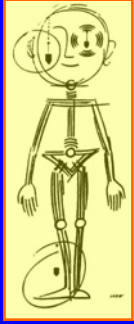
Antéro-intern nociceptive area
Defence reflex



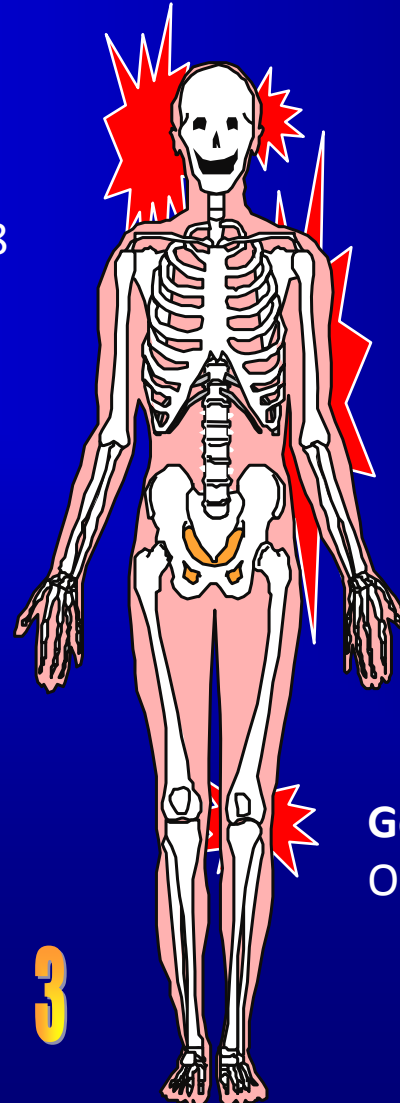
Varus reaction

Do not focus on the morphology
but to the function

Foot and Posture Implications



Céphalée
Nucalgie
Boquet 98



ATM
Marino 99

Rachialgy
Villeneuve 96

Gonalgy
Orengo 2000

 Podal problems

 Posture implications

Nociception podal effect on postural biomechanics

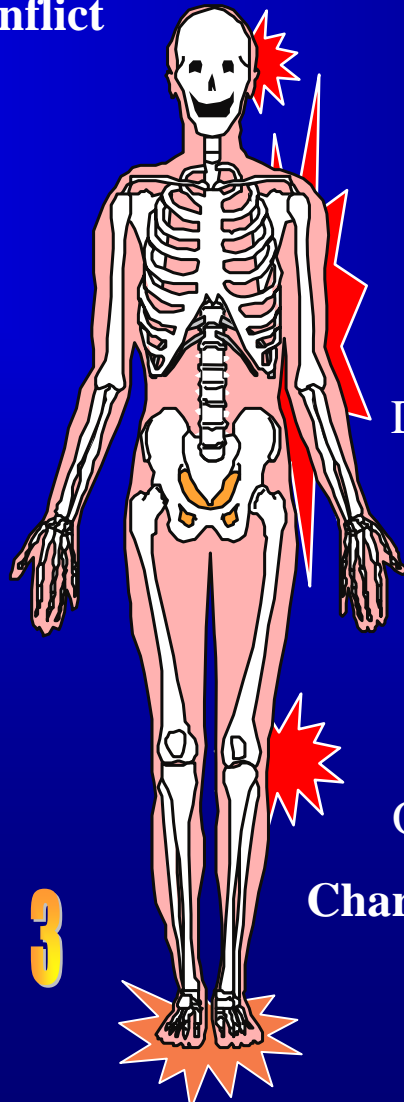


visual-podal conflict

Dujol 1990

ATM

Marino 1999



Cervicalgy

Imberti 1991

Derouin Arents 2001

Rachialgie

Villeneuve 1996

Gonalgy

Orengo 2000

Charcot-Marie-Tooth Sindroms

Gilardeau 2001

Athlétic walking

Janin 2002



Podal problems



Postural implications

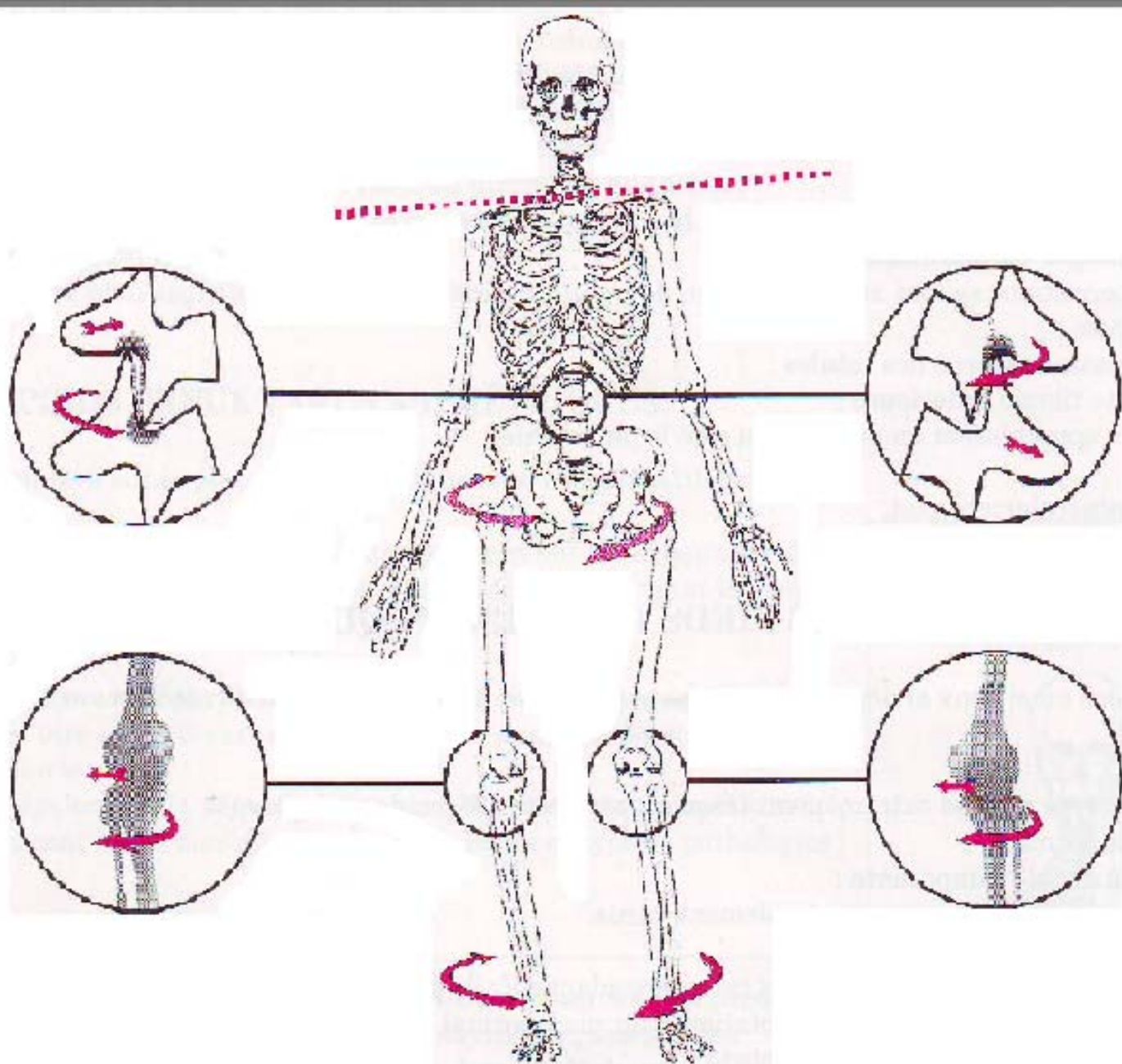
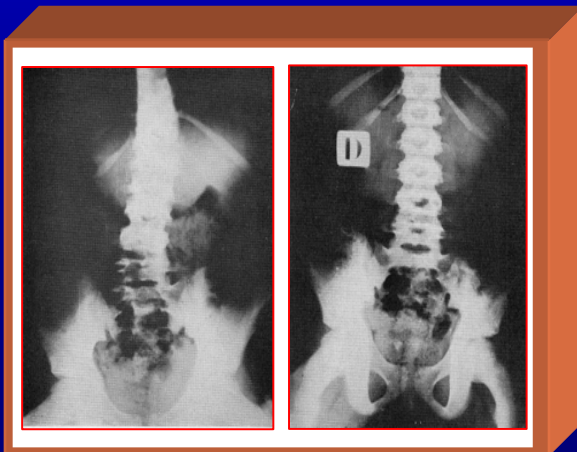
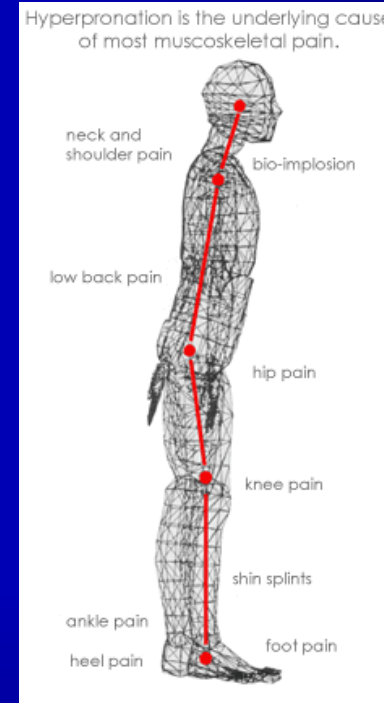
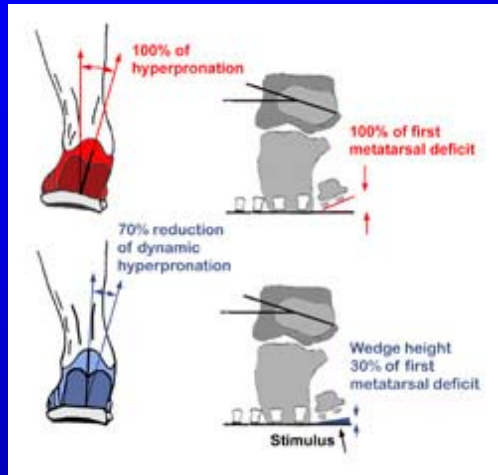
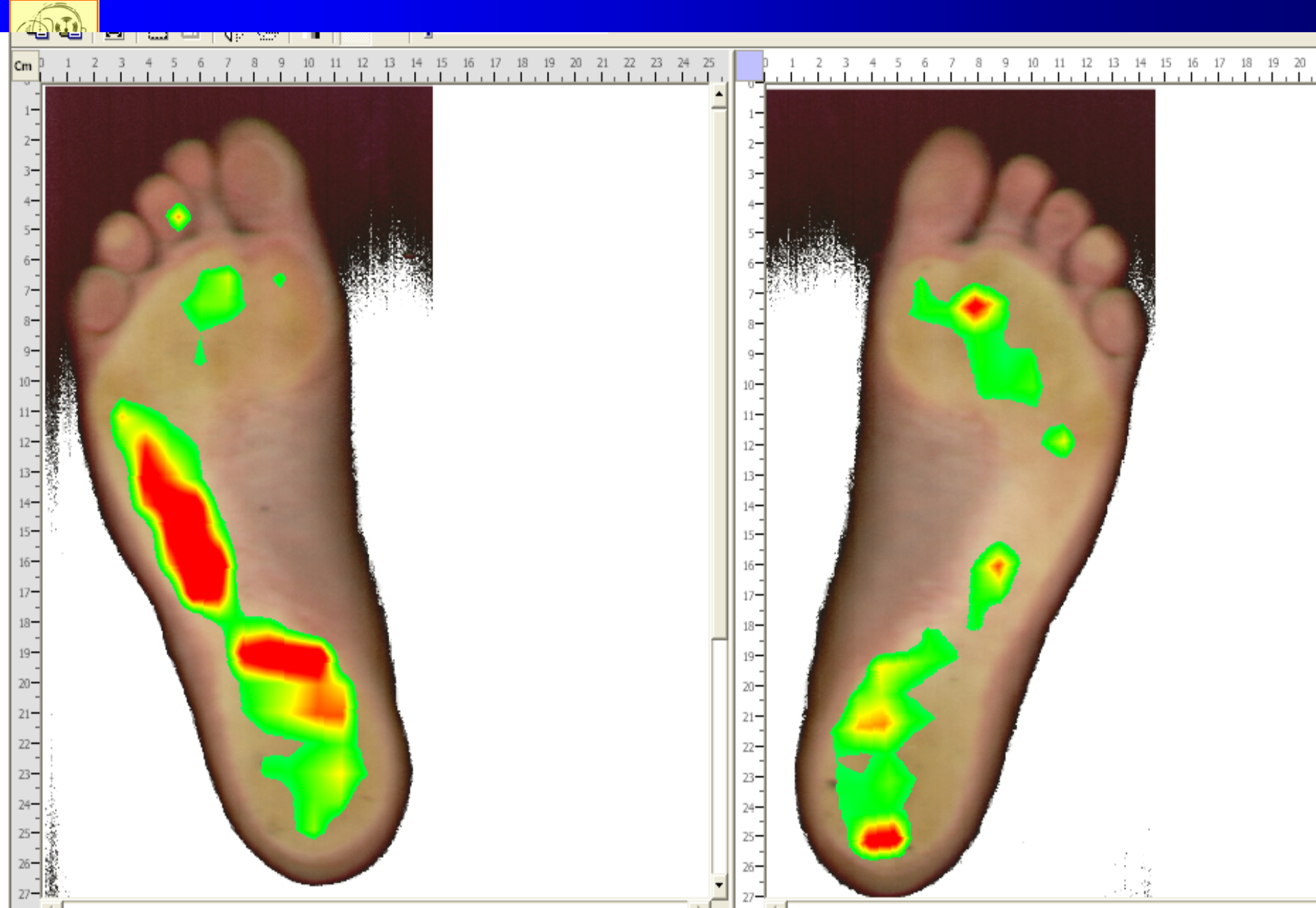


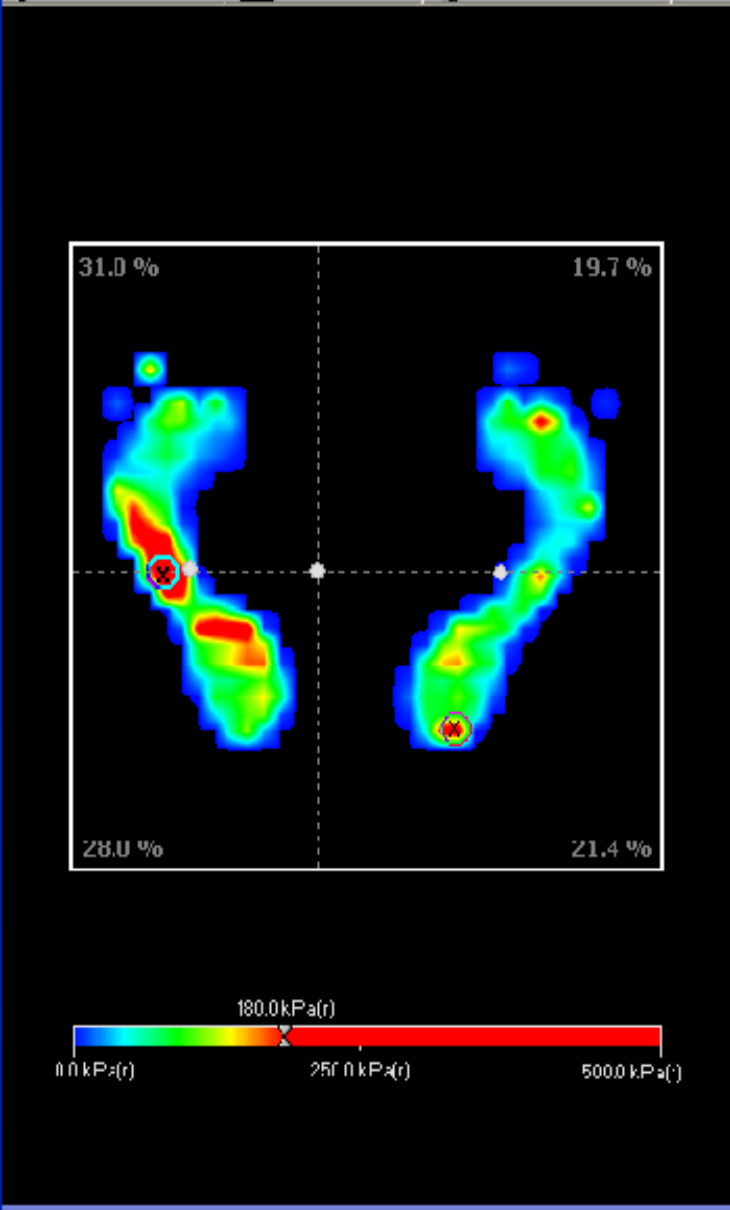
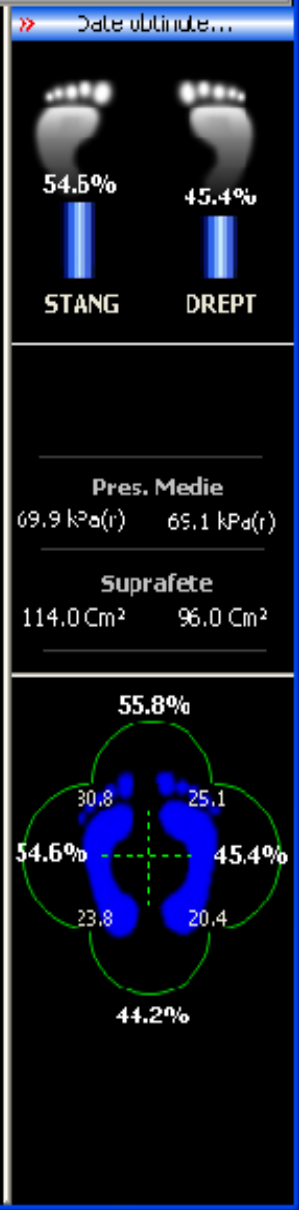
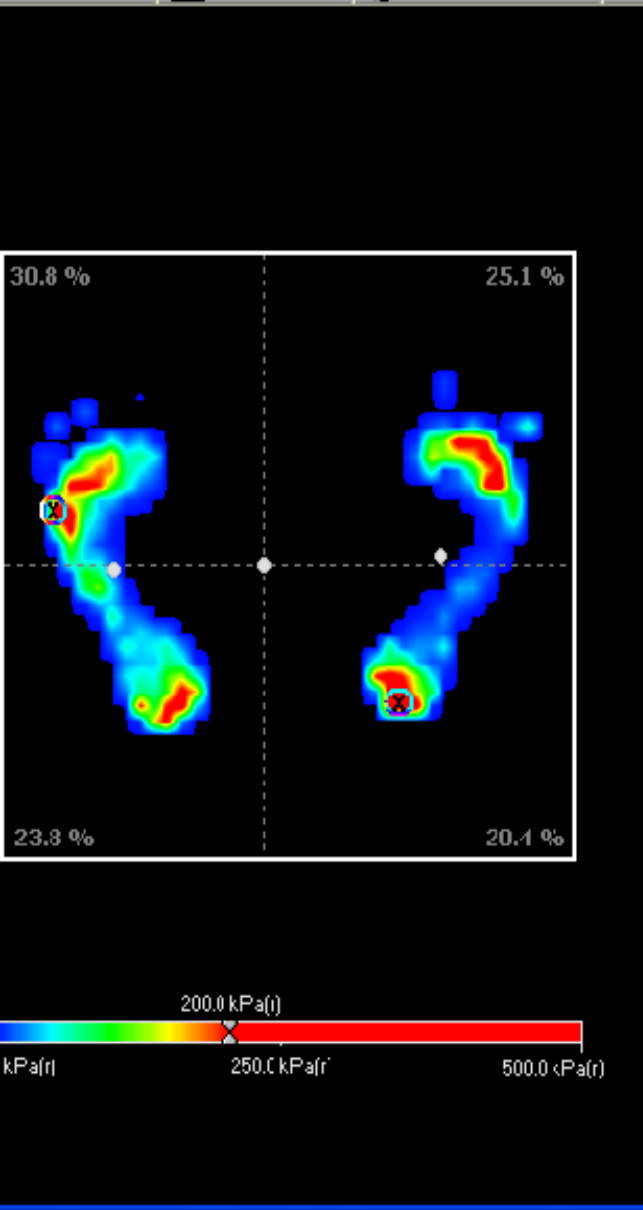
Fig. 3 21. Les pieds dysharmoniques s'accompagnent d'un pivot rotatoire sur les genoux ainsi que d'une torsion du bassin sur son grand axe.

Repercussion postural of the podal biomechanical disorders



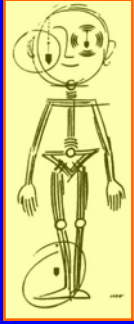
A "cause" which at first sight, seems to don't have any localized "effects", with a so-called benign character, is likely to cause significant impact and apparently unconnected one with other, because of their remoteness . Ledos 1956

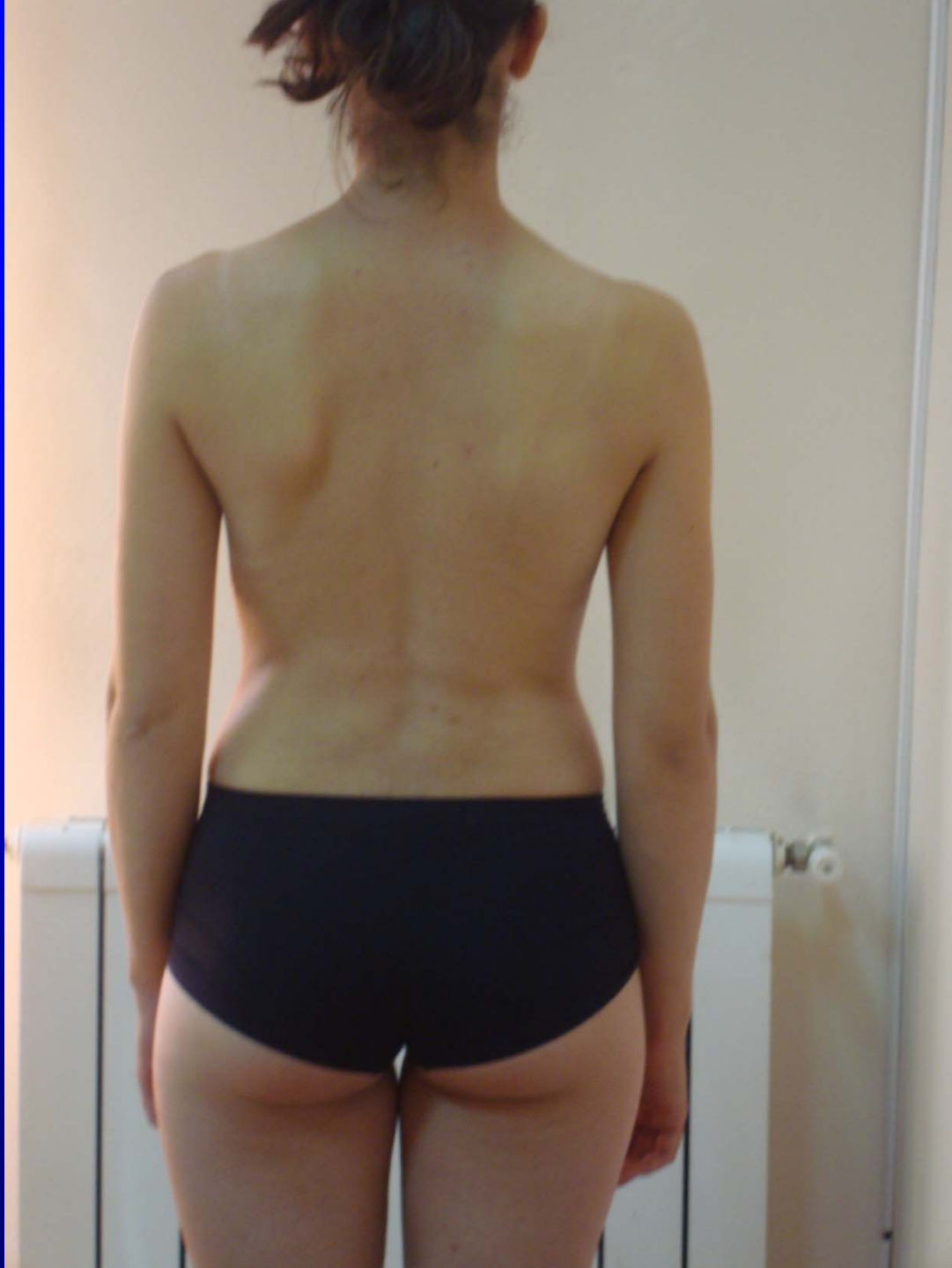
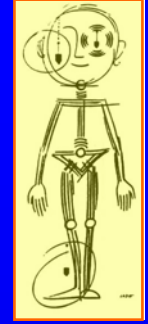




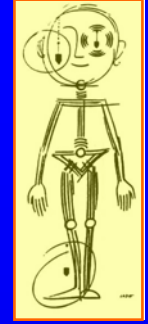
◆ Postural

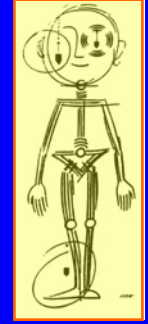
18.09.2007 reprogramation 10.09.2008











Case study

Paris - European Conference in Podology and Posturology Jan-2008

CHARACTERISTICS :

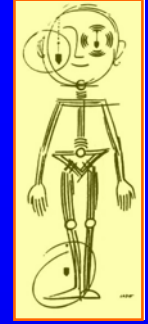
39 patients

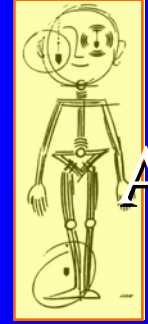
◆ 28 woman

◆ 11 men

Age = 24 – 82 years

* Average = 60,5 years





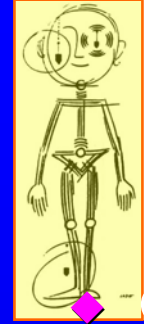
All the patients reported cervical dynamic problems

Diagnosis :

- frequent : spondylose cervicale

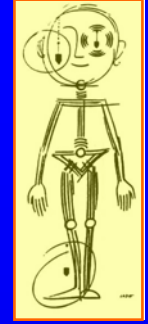
Symptom :

- Cephalee
- Vertiges
- Troubles acoustiques , cervicalgies, dorsalgies meme lombalgies



METHODOLOGY

- ◆ Oxygen-ozonotherapy with cutaneous injections at
- 5 microgr/ml, 50 cl in a sequence of points standardized :
- temporal
 - retrozigomatyque,
 - ATM,
 - the mandibular angle (all bilateral),
 - reg. occipitale ,
 - reg. cervicale (next spinal processes)
 - medial extremity
 - process spinosus (bilat.) .
- ◆ 12 sessions due to 2-3 per week.
- ◆ Recall a 7, 15 and 30 days.

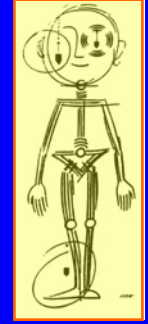


◆ Aim :

- increase mobility

◆ OBJECTIVE :

- Improving life quality

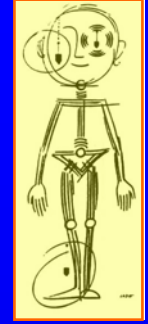


Was measured

Rotation and tilt of the head using a goniometer and a comparative photographs.

The measured have been made :

- before treatment,
- after 12 treatments
- after 30 days.

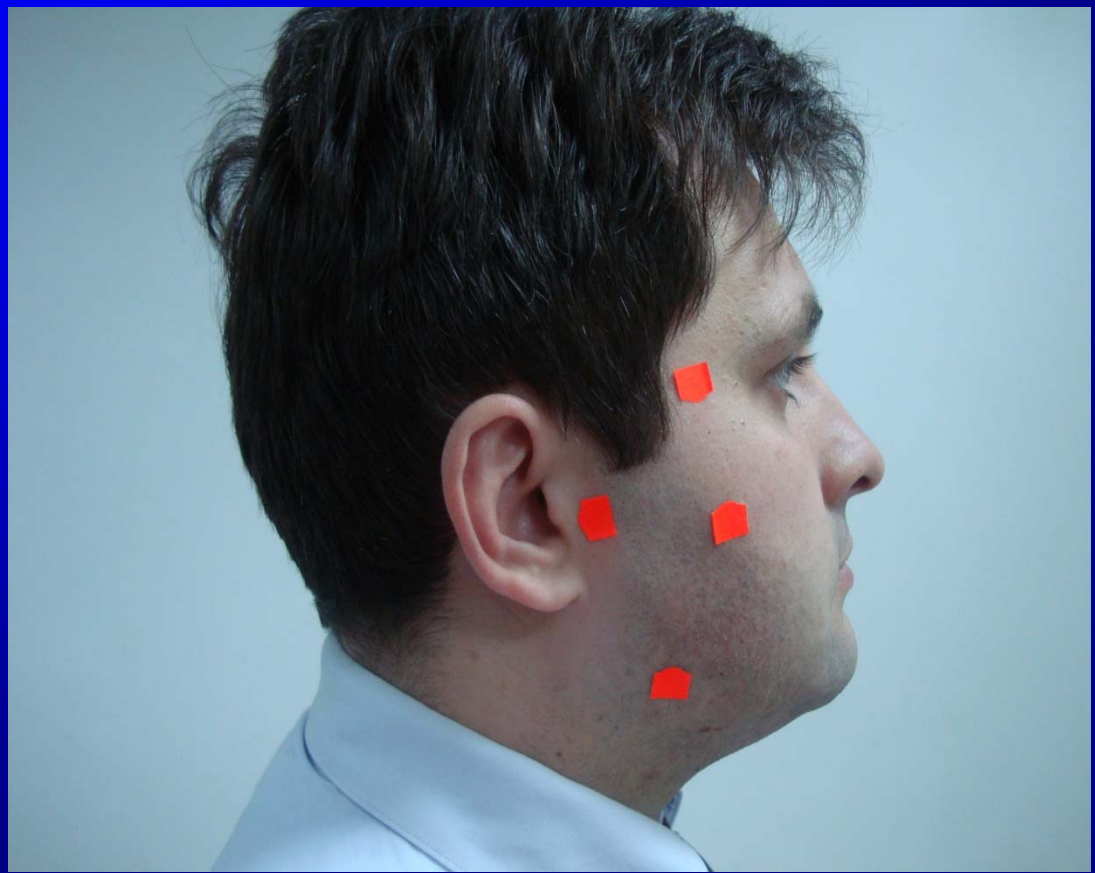


Acupuncture-like effects



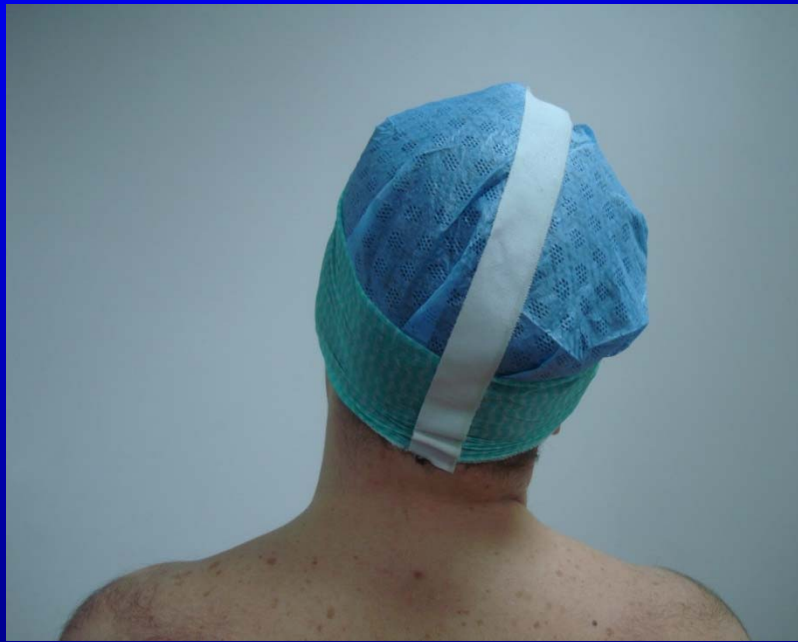
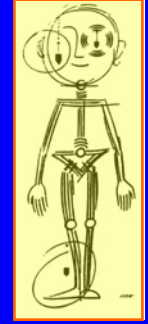


“Reset”-like effect





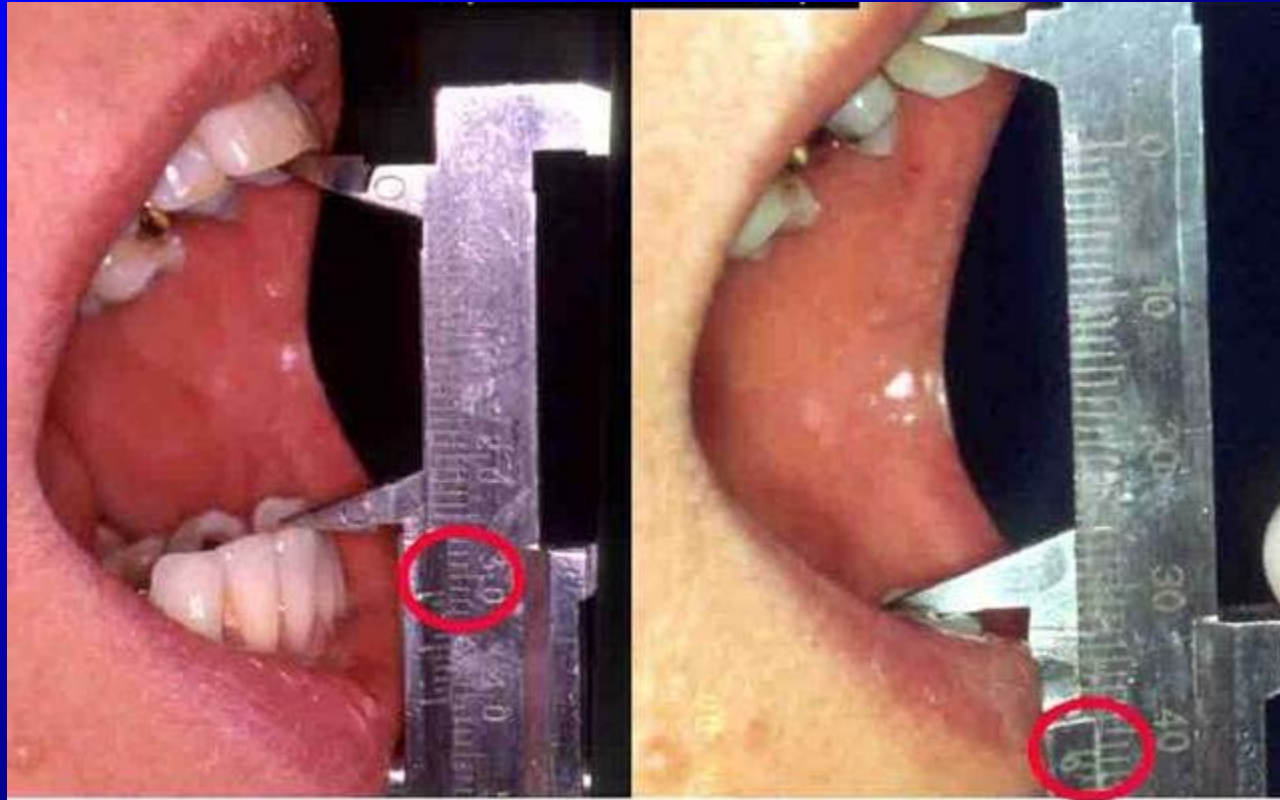




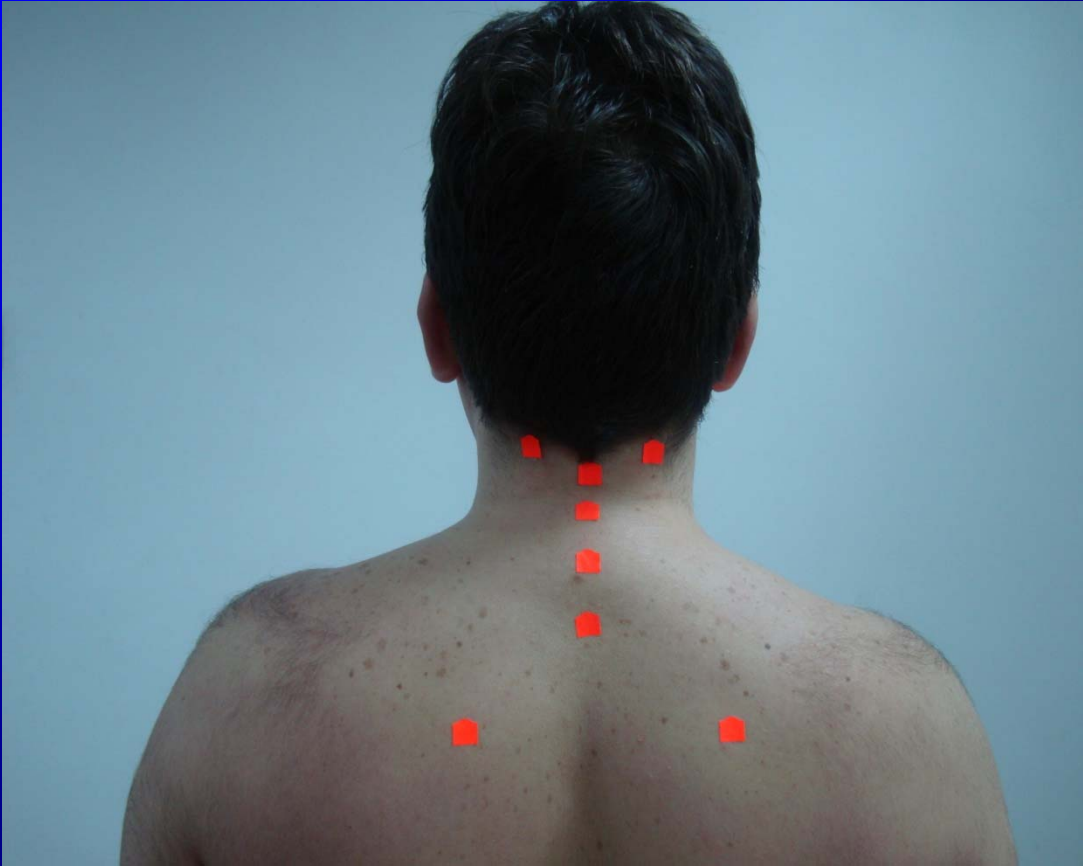


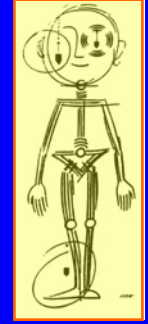


Degree of mouth opening



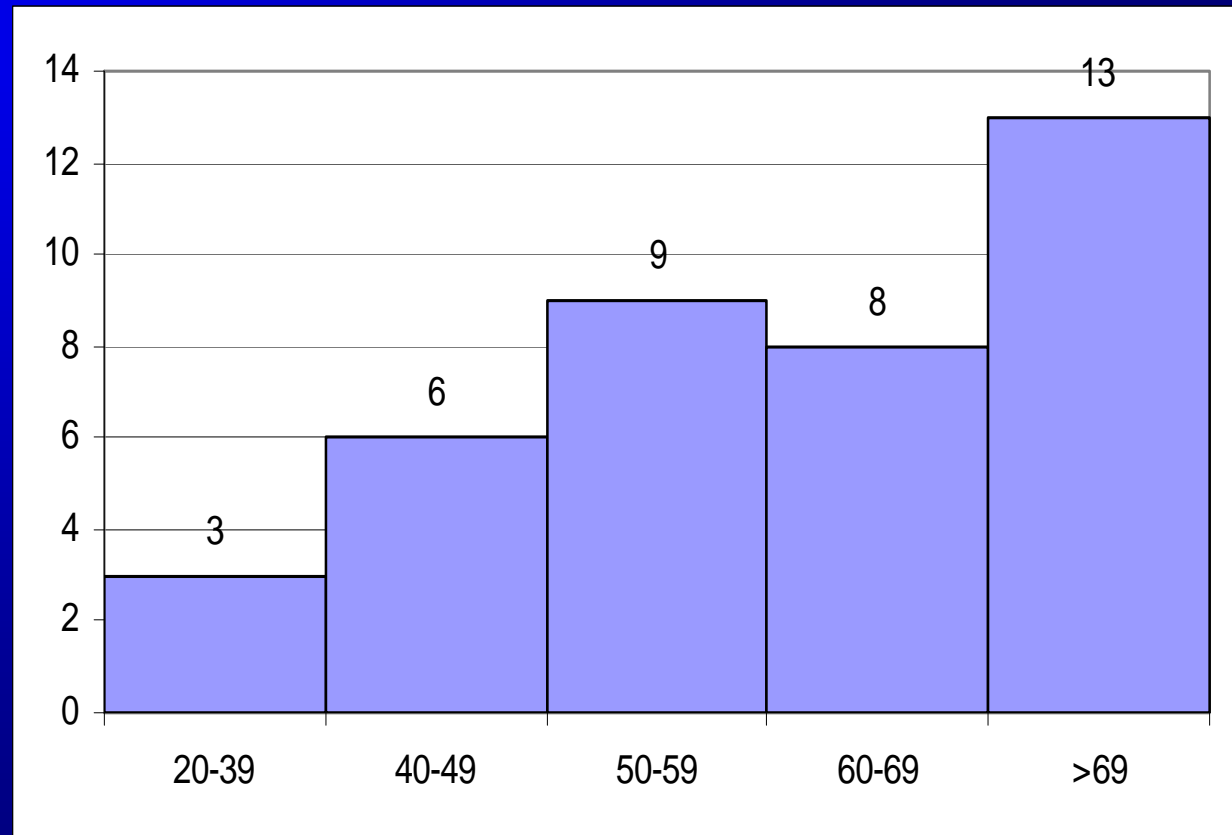


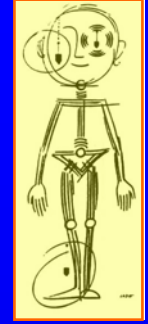




PATIENTS' PROFILE

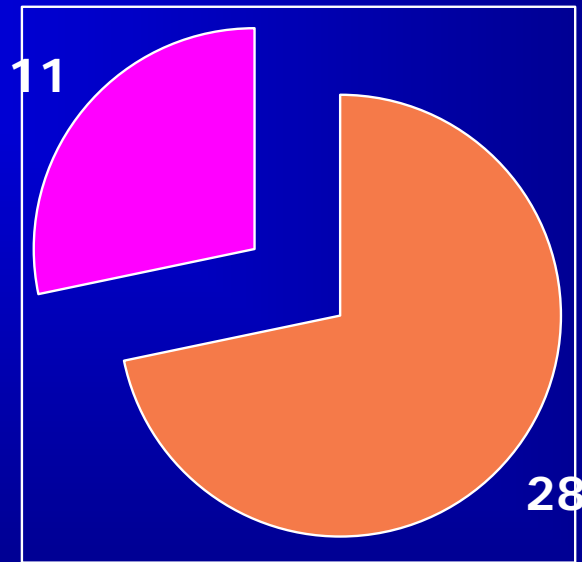
Age – related
distribution
of patients





PATIENTS' PROFILE

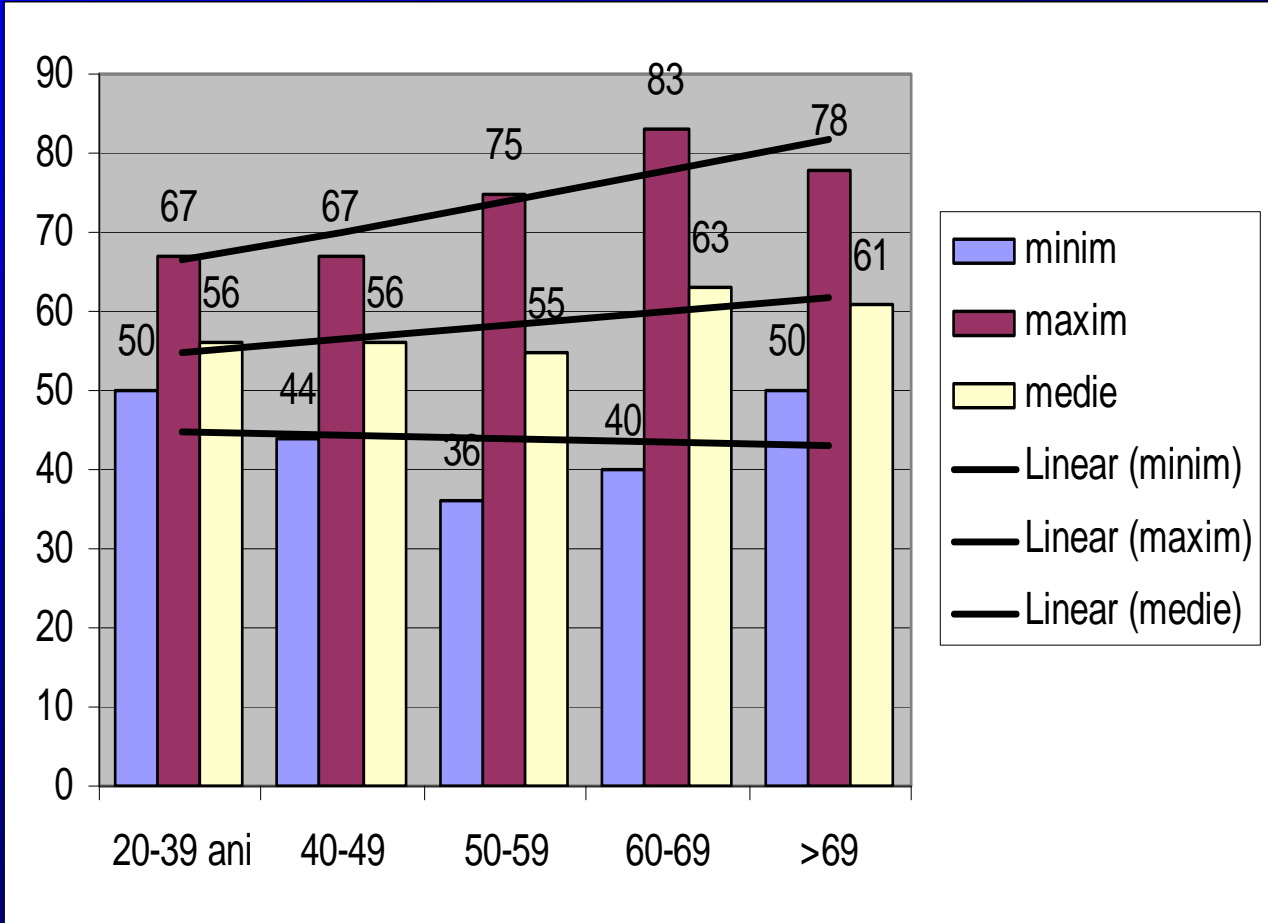
Sexual
distribution
of
patients

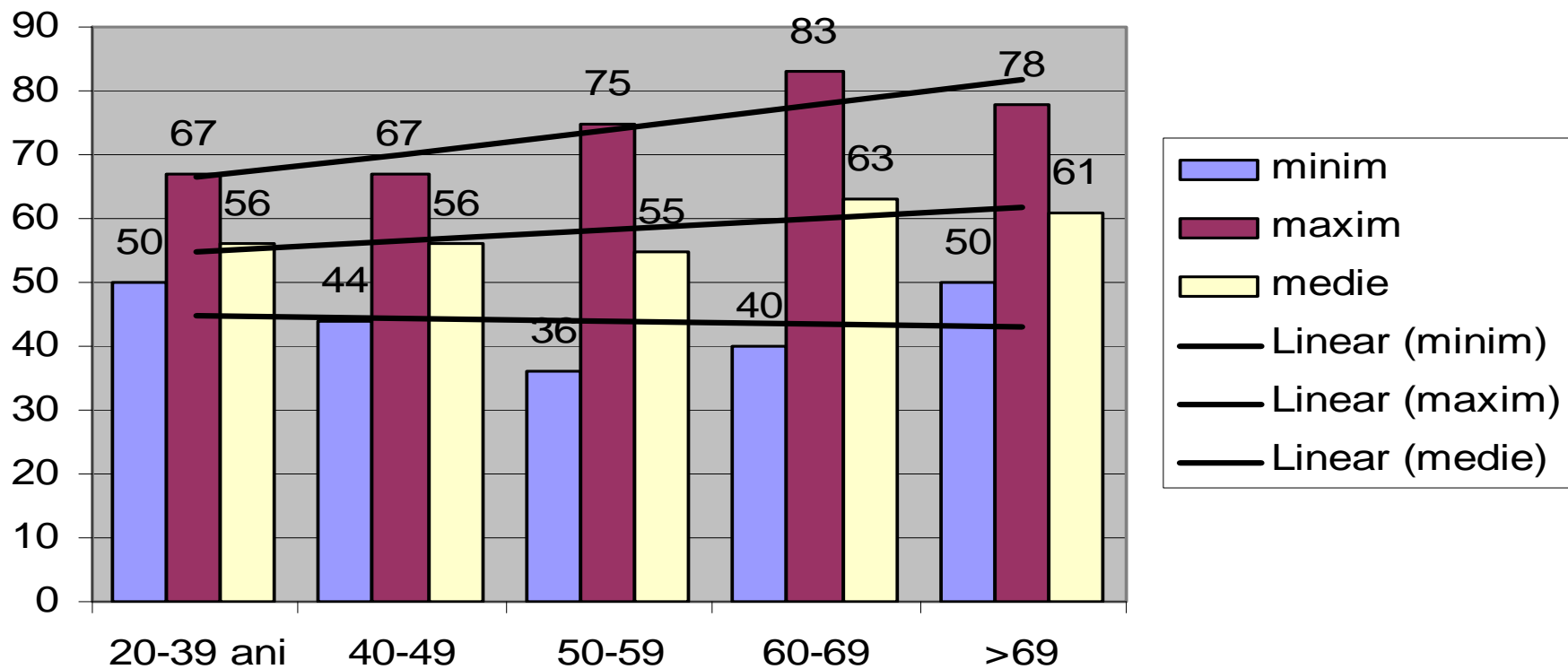




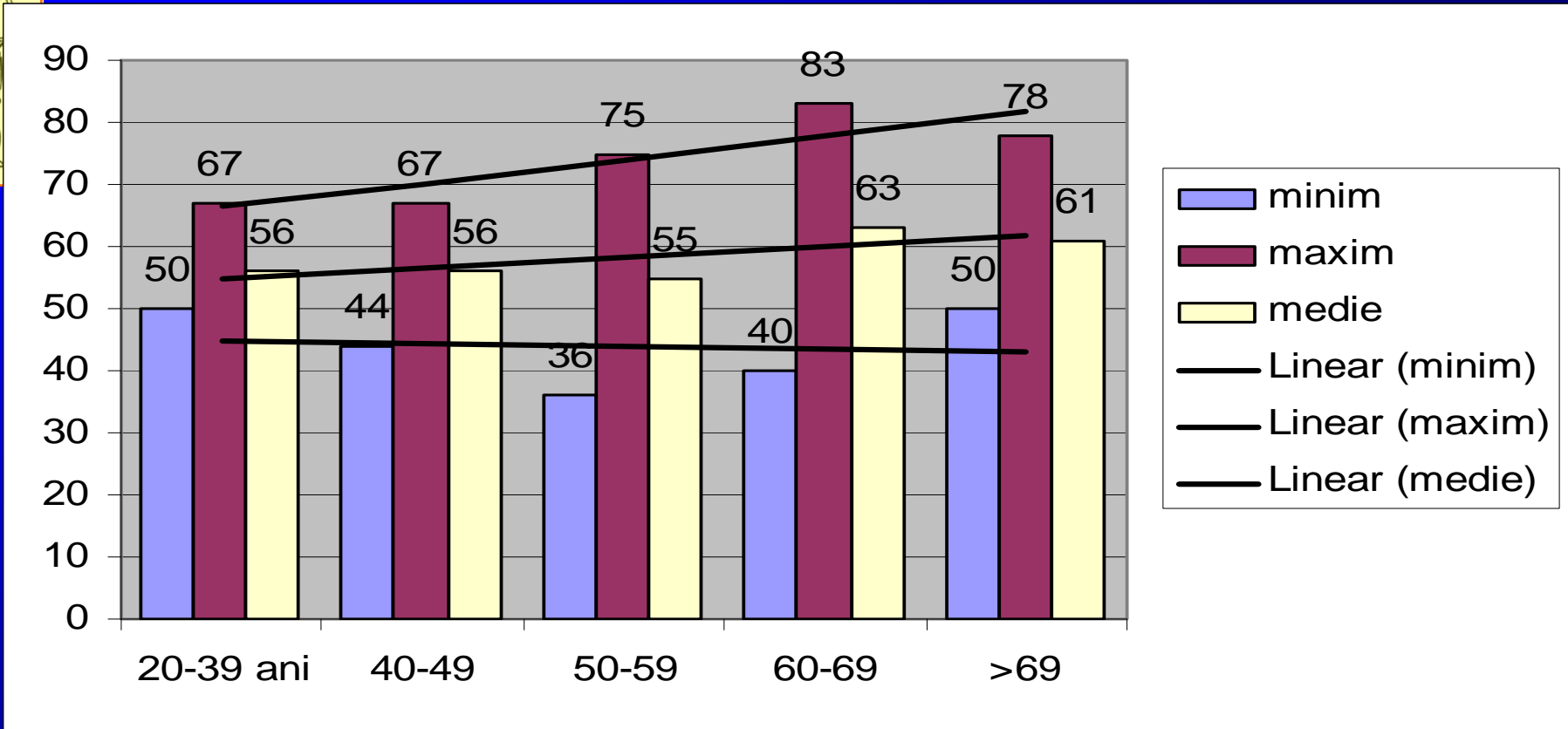
RESULTS

INCREASE IN
MOBILITY BY
REDUCING
ROTATION
ANGLE BY...
(in %)





Average increase in mobility (in %) is higher for patients in age-group 60 – 69 years .



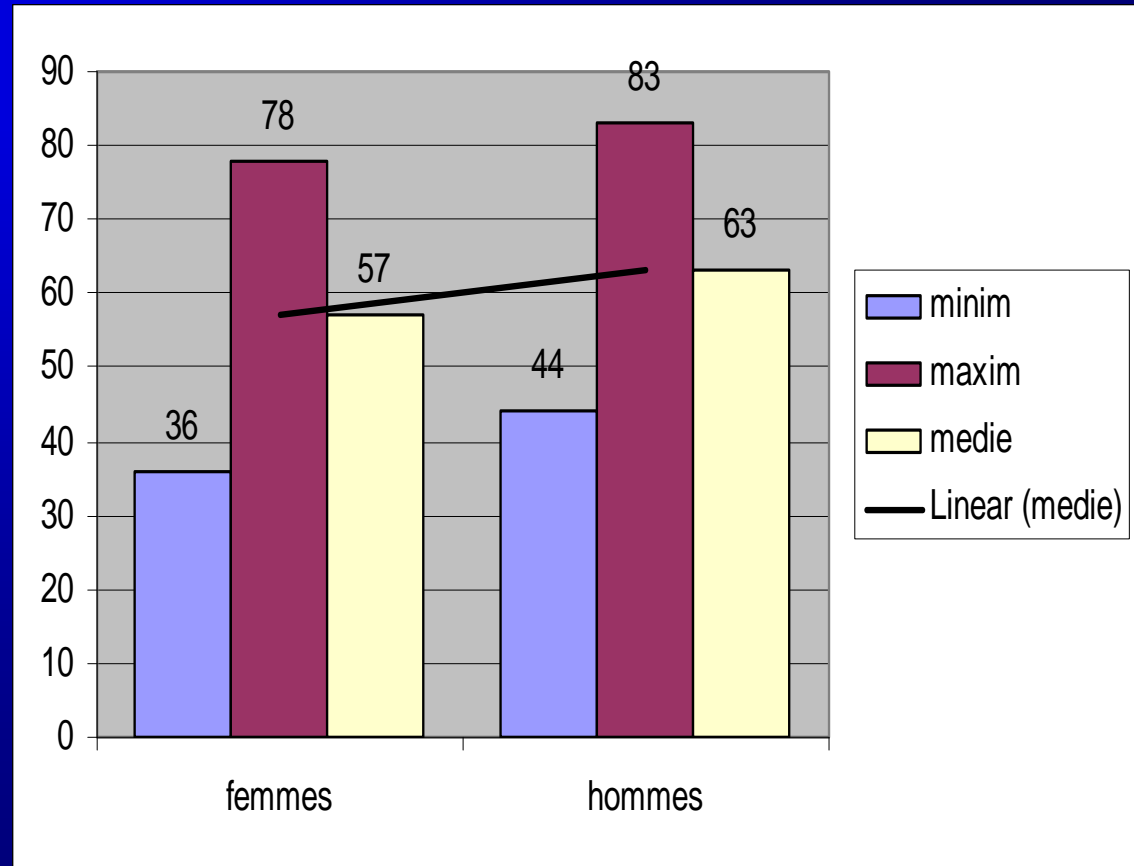
Maximum level of increased mobility was noticed at patients over 60 years old .

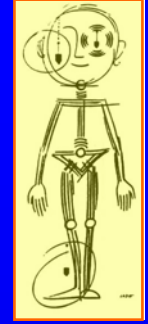


RESULTS

◆ INCREASING MOBILITY (%)

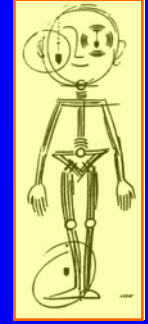
BY RAPORT
FEMMES -
HOMMES





◆ RESULTS

All subjects reported an improvement in cervical mobility.

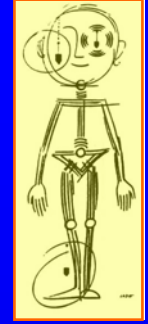


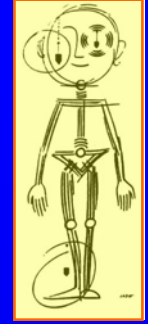
30 DAYS CHECK-UP

- ◆ It was been noticed :
- ◆ Maximum effect purcentage was constant in 30 patients
- ◆ Reduced in 8 cases
- ◆ Improved only in one case

DISCUSSION

- ◆ For the future we suggest to make measurements :
- ◆ 1- before each treatment.
- ◆ 2 - after infiltration essayer cephalic and adapt them to the local problems (optical, occlusal ...)
- ◆ 3 – Have a periodical control (3,6,12 months)
- ◆ 4- Comparative study - osteopathy, acupuncture..





CONCLUSIONS

- ◆ Treatment with subcutaneous injections of ozone are very easy to do (related to osteopathy or acupuncture applications which require a long and expensive training)
- ◆ Very few contra-indications .
- ◆ Incidents and accidents are extremely rare.
- ◆ Not painful and cheap .

Of course in some cases, you must find and treat initial postural problems in order to have stable results









PATHOLOGY SCARS

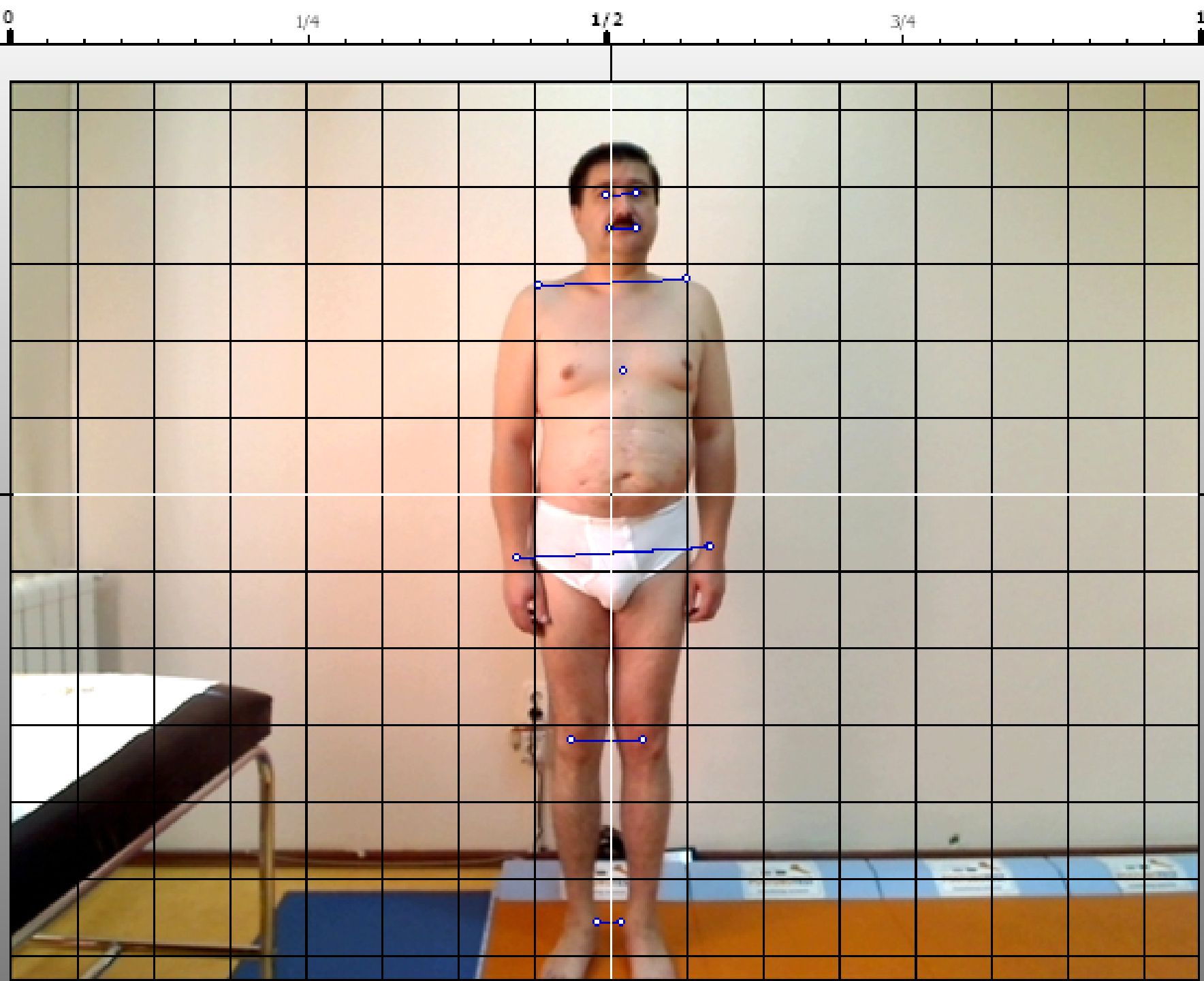
Disorders may occur through several mechanisms:

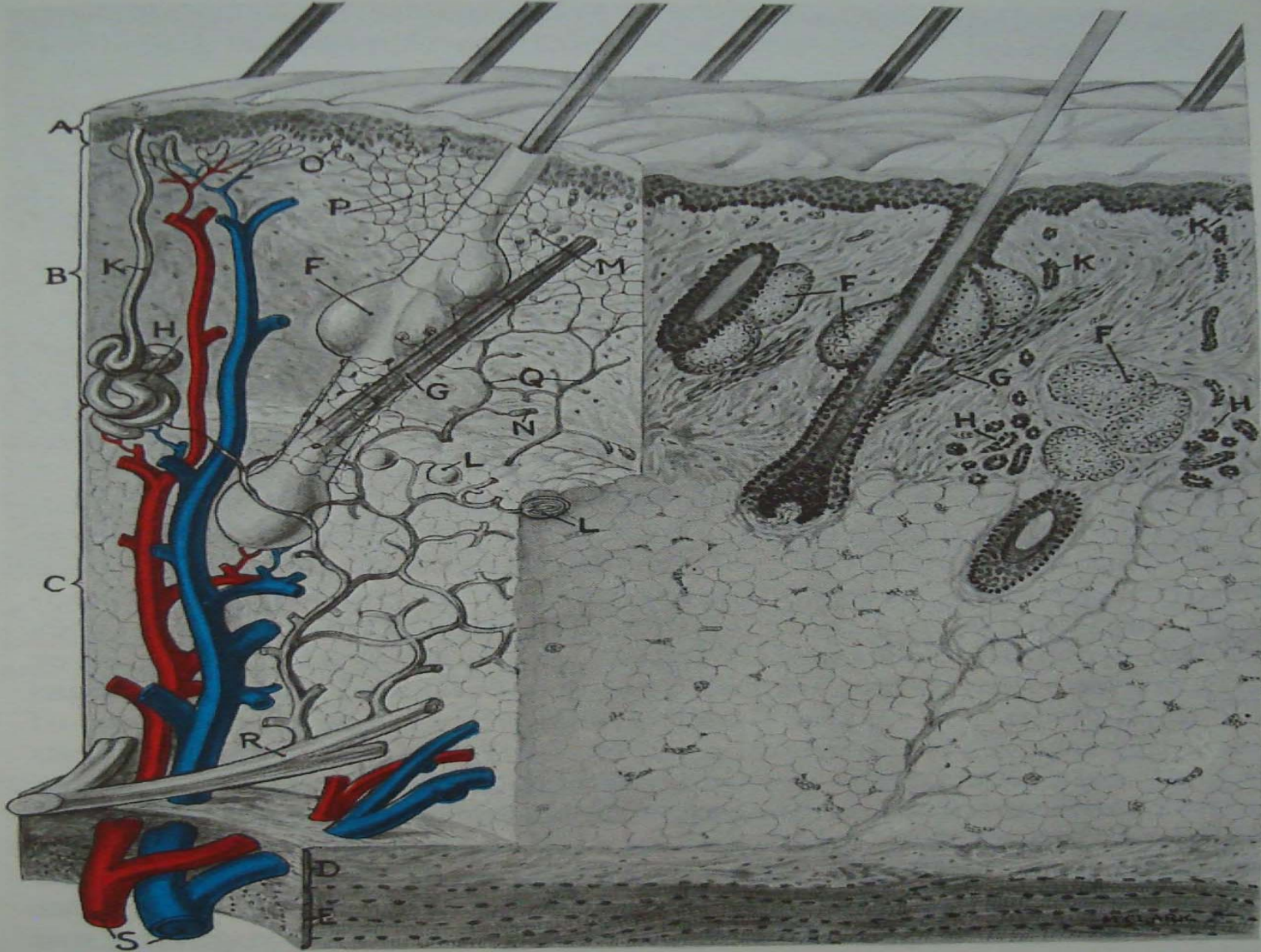
- postural disorder – through action on cutaneous exteroceptorii
- Energetic disorder - by disrupting meridians that "intersect" (Niboyet; Senelar; Aziech and Terra)
- Metabolic disorders - by hypersecretion of adrenaline

- upward or downward disturbance actions for reprogramming postural
(Bricot)









7.303 A diagrammatic scheme showing the structure of the skin. A. Epidermis. B. Dermis. C. Subcutaneous fat. D. Deep fascia. E. Muscle. F. Sebaceous glands in association with a hair follicle. G. Arrector pili muscle. H. Sweat gland. K. Duct of sweat gland. L. Bulbous corpuscle. M. Lamellated end bulb. N. Pressure corpuscle. O. Tactile corpuscle in a papilla. P. Superficial nerve plexus. Q. Deep nerve plexus. R. Cutaneous nerve. S. Cutaneous vessels.

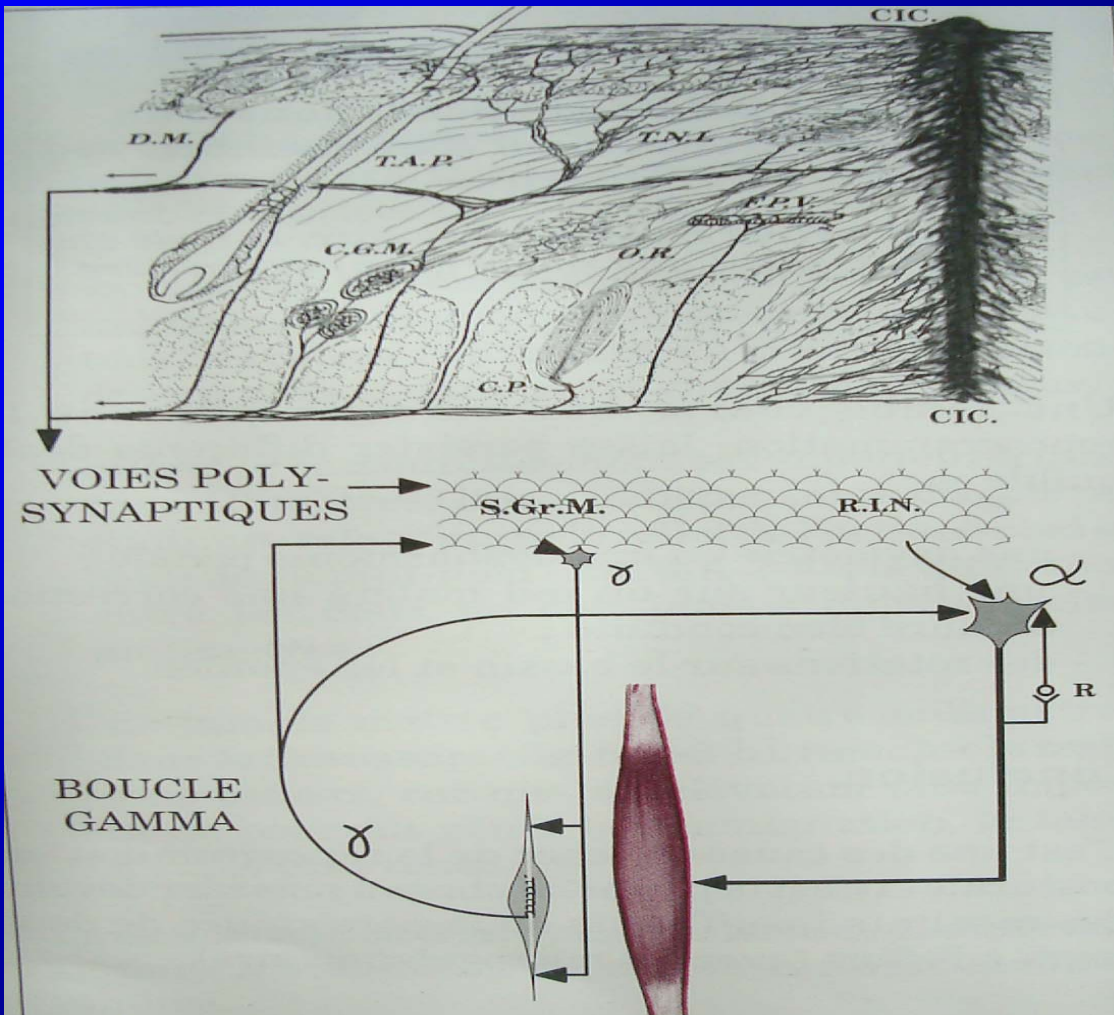
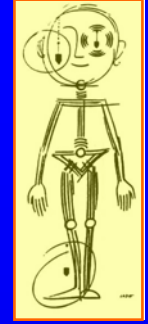


Fig. 6-B-2. (Inspiré de Paillard) Par les voies polysynaptiques arrivent les informations issues, entre autre, de la peau, les interneurons servant de relais.

Les extérocepteurs étirés par la cicatrice transmettent des informations, par l'intermédiaire des voies polysynaptiques, aux motoneurons qui augmentent le tonus musculaire afin de détendre la peau.



Gracias!

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