Investigation of driving stereotypes

movement stereotypes are one part of the kinesiological examination. The patient performs the movement and the examiner observes:

1. which muscles are involved
2. in which order they join.

Every movement has

- your starting location,
- pure (correct, normal, physiological) execution a
- described typical incorrect execution of movement indicative of certain dysfunctions of the movement system.

> ***Examples***
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> 1. *Extension in the hip joint*
> 2. *Abduction in the hip joint*
> 3. *Trunk flexion*
> 4. *Neck flexion*
> 5. *Abduction in the shoulder joint*
> 6. *Crank test*

Extension in the hip joint

Execution: The examined person lies on his stomach and slowly elevates DK.

Standard
: M.gluteus max., ischiocrural muscles, contralat. paravertebral muscles in the lumbar spine, then the homolateral. Finally, the activation wave spreads to the chest area.

Error
: M.glutaeus max. turns on late or not at all. The hamstrings (ischiocrural muscles) are the first to turn on, the flexors: ZR, ABD DK, with insufficiency in the sacral region, the ipsilateral erectors in the thoracic spine are the first to turn on, and the wave spreads caudally. It is necessary to monitor the shoulder girdle - with pathological stereotypes in the area of the upper half of the body, there is hyperactivity of the muscles of the shoulder girdle.

Abduction in the hip joint

Execution: lying on the side abduction Norm: pure abduction in the frontal plane and a balance between activation of the gluteus med. and m. TFL (or the activity of m. glut med. is greater).

Mistakes

1. with depression of glut.med. it is predominantly TFL, iliopsoas, rectus femoris, i.e. not pure abduction, but ZR, F in the hip joint
2. predominance of quadratus lumborum + other dorsal muscles. The movement begins with elevation of the pelvis, the gluteus medius and minimus muscles are weakened → abduction continues mostly by the TFL mechanism.

Torso Flexion

Performance
: The patient lies on his back and gradually raises himself round towards the bent knees.

Norm: smooth, round movement

Error
: tendency to lordotization in the cervical and lumbar spine, "swaying"

Neck flexion

Norm
: movement is ensured by the deep flexors of the neck, mainly mm. scales.

Flaws
: flexion of the neck with forward motion, this indicates the dominance of the SCM muscle. If rotation is present, then it is a unilateral dysfunction.

A pathological stereotype leads to: overloading of the thoracolumbar transition and cervicocranial transition. Often with headaches, dizziness. A finer test: the endurance test. The deep neck flexors are strong enough to hold the head for at least 20 seconds without tremors or uncertainty.

Abduction in the shoulder joint

It will give us good information about the overall nature of movement stereotypes in the area of the shoulder girdle.

Performance
: sitting

Norm
: movement starts m. deltoideus and supraspinatus muscle. Activation of upper fibers m. trapezius has a stabilizing effect only. Lower scapula fixators.

Errors: movement begins with elevation of the entire shoulder girdle => insufficient stabilization of the scapula (norm of 1° rotation of the scapula for 10° abduction in the shoulder), scapula alata

Clique stereotype - defiance

Performance
: From lying on the stomach, slowly rise to the supine position and return to the starting position

Norm: The movement is performed smoothly, without the so-called detachment of the shoulder blades, there is no lordotization of the lumbar spine or kyphotization in the thoracic parts Faults: The so-called detachment of the shoulder blades from the chest will occur, especially when transitioning from standing up to lying down, there will be a noticeable deepening of thoracic kyphosis or lumbar lordosis

Links

References

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