

Section: Qualitätssicherung, Workflow, Ergonomie

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Abstract-Title:

ERGONOMICS IN NEUROSURGERY:THE PICO SYSTEM(PARAENDOSCOPIC INTUITIVE COMPUTERASSISTED OPERATIONSYSTEM)

Authors:

K.D.M. Resch¹

¹ *Uniklinik greifswald neurochirurgie*

Abstract-Text:

Objective :

The field of ergonomics is shown as important to neurosurgery because of rising problems during evolution of techniques and equipment. The neurosurgeon himself is recommended to be seen as a part of the common system: patient <> surgeon <> technique. In the PICO-Project (Para-endoscopic Intuitive Computerasisted Operationsystem) these experiences were applied. It shall present a new neuro-endoscopic operation system.

Methods:

Preclinical laboratory work during a 25 year period showed evidence to study ergonomics condition in para-endoscopic operation simulation. Developement and testing of PICO System was designd according to this conditions.

Results:

Three ergonomical paradigms for neurosurgery are described. They are a summary of a 25 year preclinical laboratory work culminating in a para-endoscopic operation simulation model. The PICO Project resulted in a new product according to the concept of the 3 ergonomics paradigms for neurosurgery.

Conclusion:

The recognition of the three described preliminary ergonomical paradigms can bee seen as guidelines for innovative evolution of neurosurgery. The PICO System will in future show if this guidlines compete will actual needs in minimally invasive neurosurgery.

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Bild 1/JPG

Fig. 1
Ergonomics Paradigm 1
Neuropsychol. Interaction

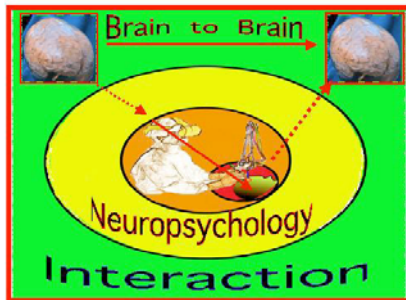


Bild 2/JPG

Fig. 2
Ergonomics Paradigm 2
Ergonomic - Zones



Bild 3/JPG

Fig. 3 Neurosurgical Ergonomics Paradigm 3
Chaotic System

