

NEUROSURGERY

Hydrocephalus surgery planning



Fig. 1: The 2-dimensional display of a 3-dimensional image results in a distorted representation

Case description: The challenge in hydrocephalus surgery planning is the precise puncture of the cerebral ventricle system so that the hydrocephalus shunt (the cerebral water drainage system) functions without problems. VSI HoloMedicine® renders and segments the cerebral ventricle system in the MRI and displays it in three dimensions with a blue background. In addition, the access planning can be displayed directly onto the patient's skin and utilized for preoperative orientation prior to the procedure by virtually superimposing the images onto the patient's head. This helps ensure a safer puncture of the ventricular system.

Advantages:

- Increased safety when puncturing the ventricular system
- Preciser anatomical orientation
- Time savings

„VSI HoloMedicine® supports ventricular puncture enormously in hydrocephalus surgery planning and simply makes it safer. VSI HoloMedicine® also has great potential in many other areas of neurosurgery (including brain tumors, sample biopsies, etc.

„I look forward to accompanying you on this path of innovation and to contributing to it with my expert knowledge gained through years of experience. We, the users, know best what makes our work easier and what we lack. But it is only through close cooperation with the developers that we will be able to implement these changes.“

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