The LOTTA® System for Intraventricular Neuroendoscopy
The LOTTA® System
for Intraventricular Neuroendoscopy

The LOTTA® system has been designed to perform the full range of endoscopic intraventricular interventions in adults and children. The cornerstone of the system includes our three ventriculoscopes: Little LOTTA®, LOTTA® 6° and 30°. These enable the treatment of all forms of obstructive hydrocephalus, intraventricular tumors and cysts, as well as arachnoid and intraparenchymal cysts. The LOTTA® system offers a choice of solutions. The Little LOTTA®, with its smaller diameter, proves to be particularly valuable for treating patients with a narrow foramen of Monro. It is also used in a wide range of applications, such as ventriculostomies, septostomies, tumor biopsies and cyst fenestrations. And the LOTTA®, with its larger dimensions, is suitable for the therapies mentioned above but is also particularly effective for removal of colloid cysts, tumor resections and stent implantations, as well as aqueductoplasties with subsequent stenting.

The larger diameter of the LOTTA® ventriculoscope allows the surgeon to perform bimanual dissection using two instruments. These can be used simultaneously in separate channels to enable more technically sophisticated procedures. Furthermore, the resection of larger tissue samples is possible, which benefits therapies such as tumor resection or cyst removal.

There are situations where a 30° viewing angle proves useful. A 30° viewing angle directed on the working channel allows earlier visualization of instruments. Therefore, the use of the LOTTA® 30° in narrow structures is beneficial. In addition, neighboring structures can easily be viewed during resections of cysts or tumors, for example, during the treatment of colloid cysts with attachment points at the tela choroidea in the roof of the 3rd ventricle.
The LOTTA® 30° is particularly recommended for the resection of colloid cysts and intraventricular tumors. It can also be used for all other endoscopic procedures such as ventriculostomies, septostomies, tumor biopsies, cyst fenestrations and stent placements.

The Little LOTTA® 6° proves to be particularly valuable for treating patients with a narrow foramen of Monro. In ventriculostomies in both children and adults, the prepontine cistern can be reached directly through the ventricles and, if necessary, the arachnoid membranes can be transected to establish the cerebrospinal fluid (CSF) flow.
The ventriculoscopes are equipped with a HOPKINS® wide-angle straight forward telescope with a high light-transmitting capacity which delivers unsurpassed image quality and safe orientation, even in protein-rich or bloody CSF fluid. The central working channel is flanked on both sides with two side channels with a smaller diameter. One is used for irrigation/suction and the other for the use of a second instrument.

However, the ventriculoscopes can still be rotated inside the sheath without having to alter the position on the holding arm – a considerable advantage for bimanual dissection. The LOTTA® system can, of course, be used “freehand”.

All ventriculoscopes have operating sheaths featuring rotational stability so that they can be fixed to the holding arm to prevent the telescope from sliding down and/or undesired rotational movements.

The irrigation function ensures that continuous cleaning is maintained in the area in front of the endoscope, even when visibility is hindered (cloudy CSF in the case of ventriculitis and/or ventricular bleeding). The drainage channel always remains open to prevent critical intracranial pressure increase caused by excessive irrigation. To facilitate insertion of the instruments into the working channel, a funnel-shaped enlargement has been integrated at the entrance to the working channel.
An obturator is inserted and locked into the working sheath before introduction. With its atraumatic distal tip, the obturator is required to facilitate introduction of the sheath into the ventricle or cysts. An optical obturator can also be used for this purpose, if necessary. A very slender HOPKINS® 0° telescope is introduced through the obturator in order to position the operating sheath under visual control.

The LOTTA® system is equipped with very stable instruments that can be used through the central working channel. Furthermore, the jaws can be aligned by rotating the adjustment wheel, without having to rotate the entire instrument.

The instrument section of this brochure offers you a range of different sets containing all the instruments required for performing the most common endoscopic procedures such as, for example, ventriculostomies, aqueductoplasties, septostomies, foraminoplasties, tumor resections and cyst fenestrations. A full set configuration includes additional diagnostic telescopes with different angles of view that ensure better orientation in the ventricular system.

Prof. Dr. med. Henry W. S. SCHROEDER
Department of Neurosurgery
Universitätsmedizin Greifswald
Germany

Source: “Application of the LOTTA® Ventriculoscopic System in Clinical Practice”, 2nd Edition,
Documentation of Findings
LOTTA® Neuroendoscope

Fig. 1: Foramen of Monro

Fig. 2: Foramen of Monro with suprasellar arachnoid cyst

Fig. 3: Tumor in foramen of Monro

Fig. 4: Biopsy of a tumor in foramen of Monro

Fig. 5: Bimanual dissection by cutting into the membrane of a suprasellar arachnoid cyst with forceps and scissors

Fig. 6: Bimanual dissection using forceps and bipolar electrode
Fig. 7: Floor of the third ventricle

Fig. 8: Choroid plexus in the lateral ventricle

Fig. 9: Ventriculostomy with balloon catheter

Fig. 10: Pellucid septum

Fig. 11: Colloid cyst

Fig. 12: Stent in the aqueduct
LOTTA® Neuroendoscope

Recommended Set

LOTTA® Ventriculoscope with HOPKINS® Wide Angle Straight Forward Telescope 6°, angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6, autoclavable, fiber optic light transmission incorporated, color code: green

Operating Sheath, graduated, rotating, outer diameter 6.8 mm, working length 13 cm, for use with LOTTA® Ventriculoscope 28164LA

Obturator, for use with Operating Sheaths 28164LS and 28164LSB

Optical Obturator, for positioning Operating Sheaths 28164LS and 28164LSB under visual control, for use with HOPKINS® Telescope 28008AA

HOPKINS® Straight Forward Telescope 0°, diameter 2 mm, autoclavable, fiber optic light transmission incorporated, color code: green
LOTTA® Neuroendoscope 30°

Recommended Set

28164LAB/28164LSB

28164LO

28164LP

28008AA

LOTTA® Ventriculoscope, HOPKINS® wide angle telescope 30°, angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6 mm, autoclavable, fiber optic light transmission incorporated, color code: red

28164LSB Operating Sheath, graduated, rotating, outer diameter 6.8 mm, working length 13 cm, for use with LOTTA® Ventriculoscope 30° 28164LAB

28164LO Obturator, for use with Operating Sheaths 28164LS and 28164LSB

28164LP Optical Obturator, for positioning Operating Sheaths 28164LS and 28164LSB under visual control, for use with HOPKINS® Telescope 28008AA

28008AA HOPKINS® Straight Forward Telescope 0°, diameter 2 mm, length 26 cm, autoclavable, fiber optic light transmission incorporated, color code: green
Neuroendoscope Operating Instruments

Recommended Set

For use with Large LOTTA® Ventriculoscope 28164LA/28164LAB

CLICKLINE Biopsy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2.7 mm, working length 30 cm

including:

Metal Handle, without ratchet
Outer Sheath, with forceps insert

Diameter 2 mm, working length 30 cm

CLICKLINE Scissors, pointed, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2 mm, working length 30 cm

CLICKLINE Biopsy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm

CLICKLINE Ventriculostomy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, diameter 2 mm, working length 30 cm

CLICKLINE Grasping Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm

Diameter 1.7 mm, working length 30 cm

Scissors, pointed, lightly curved jaws, double action jaws, diameter 1.7 mm, working length 30 cm

Diameter 1.3 mm, working length 30 cm

Scissors, pointed, single action jaws, diameter 1.3 mm, working length 30 cm

Diameter 1 mm, working length 30 cm

Forceps, for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm

Biopsy Forceps, flexible, double action jaws, diameter 1 mm, working length 30 cm
Neuroendoscope Operating Instruments

Recommended Set

For use with Large LOTTA® Ventriculoscope 28164LA/28164LAB

Outer diameter 2.4 mm, working length 30 cm

28164 BDV

TAKE-APART® Bipolar Forceps, long,
flat jaws, outer diameter 2.4 mm, working length 30 cm
including
Bipolar Ring Handle
Outer Sheath
Bipolar Insert, for single use, package of 5

28164 FGV-S
Bipolar Forceps Insert, long flat jaws,
pack of sterile, single use, pk/2

28164 LG

Guillotine Knife, outer diameter 2.7 mm,
working length 30 cm,
including:
Handle
Guillotine Knife Insert

28762 KB
Bipolar Coagulation Electrode,
diameter 1.7 mm, working length 30 cm
Little Lotta® Neuroendoscope

Recommended Set

Little LOTT® Ventriculoscope, HOPKINS® Wide Angle Straight Forward Telescope 6°, small, with angled eyepiece, outer diameter 3.6 mm, length 18 cm, working channel diameter 1.6 mm, with suction and irrigation channel diameter 0.8 mm, autoclavable, with irrigation adaptor, fiber optic light transmission incorporated, color code: green

Operating Sheath, small, outer diameter 4.5 mm, working length 13.3 cm, for use with Ventriculoscope 28164LLA

Obturator, for use with operating sheath 28164LLS

Optical Obturator, for use with operating sheath 28164LLS and HOPKINS® Telescope 28008AA

HOPKINS® Straight Forward Telescope 0°, diameter 2 mm, length 26 cm, autoclavable, fiber optic light transmission incorporated, color code: green
Neuroendoscope Operating Instruments

Recommended Set
For use with LOTTA® Ventriculoscope 28164LLA

Instruments

28161SC  Scissors, single-action jaws, diameter 1.3 mm, working length 30 cm
28161SB  Biopsy Forceps, double action jaws, diameter 1.3 mm, working length 30 cm
28161SG  Grasping Forceps, double-action jaws, diameter 1.3 mm, working length 30 cm
28161SF-S Bipolar Coagulation Electrode, diameter 1.3 mm, working length 30 cm, sterile, single use
28160TV  Forceps, for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm

Diagnostic Telescopes

28007AA  HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated, color code: green
28007BA  HOPKINS® Forward-Oblique Telescope 30°, diameter 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated, color code: red
28007FA  HOPKINS® Telescope 45°, enlarged view, diameter 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated, color code: black
POINT SETTER – Pneumatic Holding System

28172WKS1-KT

**POINT SETTER**, pneumatic holding arm, set including:

**POINT SETTER Arm**

**OR Table Adaptor**

1ea. 28272UFP - Adjustable Clamp
1ea. 28272PSK - Adjustable Clamp
1ea. 28272PSG - Adjustable Clamp
Mechanical Holding System

Clamping Jaw

28272UKN  **Clamping Jaw**, metal, for use with instrument and telescope sheaths, clamping range 4.8 up to 12.5 mm, with quick release coupling KSLOCK (male)

Articulated Stands

28272HB  **Articulated Stand**, reinforced version, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, swivel range 52 cm, with quick release coupling KSLOCK (female)

Rotation Socket

28172HR  **Rotation Socket**, to clamp to the operating table with one mounted Butterfly Nut 28172HRS, for European and US standard rails, with lateral clamp for height and angle adjustment of the articulated stand

It is recommended to check the suitability of the product for the intended procedure prior to use. Please note that the described products in this medium may not be available yet in all countries due to different regulatory requirements.