University of BRISTOL

Vesalius Clinical Training Unit

Operative Skills in Neurosurgery

6-8th November 2019

Programme

Course Director

Mr George P. Malcolm
Consultant Neurosurgeon
Bristol

Course accredited by

Royal College of Surgeons
ADVANCING SURGICAL CARE

Acknowledgements

We are extremely grateful to the following companies who so generously support this course.

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Providers of the High Speed Drill Training Day, essential equipment, consumables and technical support

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Technical support and maintenance of operating microscopes.

Faculty

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High Speed Drill Training Day

Day One – Wednesday 6th November 2019	
09.30	***Registration and refreshments***
10.00	Welcome and introduction
10.10	Drilling Workshop Part I
11.00	***Refreshments***
11.30	Drilling Workshop Part II
1230	***Lunch***
1330	Drilling Workshop Part III
1430	Drilling Workshop Part IV
15.30	***Refreshments***

Basic Surgical Anatomy Tutorials

1600	Spinal surgical anatomy and approaches Learning objectives • Soft tissue and bony anatomy relevant to cervical and lumbar decompression. • Soft tissue and bony anatomy relevant to instrumentation of C1 and C2 and foramen magnum decompression.
1700	***Refreshments***
1715	Cranial surgical anatomy and surgical approaches Learning objectives • Soft tissue and bony anatomy relevant to frontotemporal and pterional craniotomy • Soft tissue and bony anatomy relevant to posterior fossa craniotomy. • Yasargil classification of craniotomies.
1815	***Close***

Day Two – Thursday 7th November 2019		
0800	***Signing in and Refreshments***	
08.15	**ANTERIOR CERVICAL SPINE** **Lecture** Learning objectives • Soft tissue and bony anatomy relevant to anterior cervical decompression with emphasis on the discs and uncovertebral joints, pedicle and articular processes and their relationship to the dura, nerve roots and vertebral arteries • Operative technique of anterior cervical discectomy and foraminotomy **Cadaveric exercise** Learning objectives • Anterior cervical dissection with discectomy, foraminotomy and corpectomy.	GP Malcolm
1045	***Refreshments***	
1100	**POSTERIOR CERVICAL SPINE** **Lecture** Learning objectives • Soft tissue and bony anatomy relevant to posterior cervical decompression including the facet joint, pedicle, thecal sac, nerve roots and disc **Cadaveric exercise** Learning objectives • Operative technique of cervical laminectomy and posterior foraminotomy and discectomy Learning objectives	GP Malcolm
1245	***Lunch***	
1315	**POSTERIOR CRANIOCERVICAL JUNCTION** **Lecture** Learning objectives • Anatomy of the craniocervical junction including C1, C2, C2 nerve root and vertebral artery **Cadaveric exercise** Learning objectives • Midline posterior exposure of craniocervical junction with demonstration of Atlas, Axis, C2 nerve root and vertebral artery. • Understanding of landmarks for C1 and C2 instrumentation.	GP Malcolm
1445	***Refreshments***	

1500	**POSTERIOR LUMBAR SPINE Part 1** **Lecture** Learning objectives • Lumbar musculature relevant to surgical exposure of the lumbar spine • Anatomy of the lumbar vertebrae as relevant to surgical exposure of disc prolapses. • Anatomy of the dural sac and cauda equina as relevant to lumbar decompressive procedures • Relationship of the five lumbar and first sacral nerve roots to the discs, pedicles and facet joints. • Concept of exiting and transiting nerve roots • Operative techniqe of lumbar microdiscectomy and lateral recess decompression **Cadaveric exercise** Learning objectives • Midline posterior exposure of lumbar spine • Lumbar microdiscetomy • Lateral recess decompression by laminectomy with demonstration at one level of transiting and exiting nerve roots, exposure of pedicles and identification of superior and inferior articular processes. • Upper lumbar dissection beyond pedicle to identify entry point for pedicle screws as well as exiting root crossing disc at point of "far lateral" disc prolapse	GP Malcolm
1630	***Refreshments***	
1645	**POSTERIOR LUMBAR SPINE Part 2** **Completion of cadaveric exercise.**	GP Malcolm
1800	**Close**	

1945	Course Dinner. Browns Restaurant 38 Queens Road, Clifton, Bristol, BS8 1RE

Day Three – Friday 8th November 2019		
08.00	***Signing in and Refreshments***	
08.15	**FRONTOTEMPORAL AND PTERIONAL CRANIOTOMY** **Lecture** Learning objectives • Classification of craniotomies with comparison of frontotemporal and pterional approach. • Relevant surface anatomy and anatomy of surgical approach • Operative technique of frontotemporal craniotomy **Cadaveric exercise** Learning objectives • Technique of frontotemporal and pterional craniotomy • Cortical anatomy of frontal and temporal lobe • Sylvian fissure dissection • Anatomy of proximal internal carotid, optic nerve, anterior clinoid and occulomotor nerve	GP Malcolm
10.45	***Refreshments***	
1100	**BIFRONTAL CRANIOTOMY** **Lecture** Learning objectives • Surface anatomy and relevant anatomical landmarks • Anatomy of surgical approach including vessels and nerves of scalp and anatomy of frontal bones including air sinuses. • Anatomy of sagittal sinus • Operative technique of bifrontal craniotomy including frontal air sinus exenteration and exteriorisation of air sinuses with vascularised pericranial flap. **Cadaveric exercise** Learning objectives • Bifrontal craniotomy • Extradural and intradural approach to anterior fossa with identification of olfactory tracts, optic nerves and anterior cererbral artery complex. • Formal division of anterior sagittal sinus • Exenteration of frontal air sinuses • Exteriorisation of sinuses with vascularised pericranial flap • Bone flap replacement with various fixation techniques	GP Malcolm
1245	***Lunch***	

1315	**POSTERIOR FOSSA** **Lecture** Learning objectives • Surface anatomy and anatomical landmarks relevant to posterior fossa craniotomy (Lateral, paramedian and median approaches) • Rhoton concept of three neurovascular complexes • Venous sinuses • Floor of fourth ventricle • Operative technique of posterior fossa craniotomy **Cadaveric exercise** Learning objectives • Midline prone exposure of posterior fossa • Identification of venous sinuses and major arteries • Identification of lower cranial nerves • Identification of neural triangles in the floor of fourth ventricle • Identification of Meckels cave, and cranial nerves V to VIII with resection of cerebellar hemisphere as necessary	A. Williams
1545	***Refreshments***	
1600	**PARASAGITTAL CRANIOTOMY,** **Lecture** Learning objectives • Anatomy of the sagittal sinus, cortical veins, the falx and the pericallosal arteries • Surgical approach to parasagittal lesions • Surgical approach to parietal and occipital lesions **Cadaveric exercise** Learning objectives • Parasagittal craniotomy	N.Barua
18.00	***Close***	