

MuRAL Clinical Workshop

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Logistics / Organization



MuRAL Clinical Workshop Logistics / Organization

	Half Day Session	MuRAL Introduction (meeting room / class room settings); duration ≈ 1 hour.
		MuRAL Interventions: recommending to schedule 4 patients; time in $OR \approx 3$ hours. Interventions performed by host – under guidance of Dr. Claudio Pagano.
		Surgeons observing intervention: recommending to consider up to 4 observers / intervention.
		Debriefing / Q&A \approx 30 min.

	MuRAL Introduction (meeting room / class room settings); duration ≈ 1 hour.
Full Day Session	MuRAL Interventions: recommending to schedule 6-8 patients; time in OR \approx 5-6 hours. Interventions performed by host – under guidance of Dr. Claudio Pagano.
	Surgeons observing intervention: recommending to consider up to 4 observers / intervention.
	Debriefing / Q&A \approx 1 hour.

Notification: the workshop agenda shall be provided to the organizers latest 1 week in advance of the date on which the event is scheduled.

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MuRAL Clinical Workshop

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Short Bios Organizers

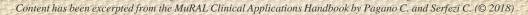


Dr. Claudio Pagano

Educational Background	 Medical Doctor, Medical School, University of Milan (Italy) Specialization General Surgery High Specialization in Coloproctology 		
Current Position	 First Level Director General Surgery Unit, Vizzolo Predabissi Hospital, Melegnano – Milan (Italy) 		
Areas of Expertise	 Laparoscopic and Robotic-assisted Surgery Video-assisted Thoracoscopic Surgery (VATS) Sacral Neuromodulation Testing & Pacemaker Implant Coloproctology Mucopexy – Recto Anal Lifting (MuRAL) Transanal Hemorrhoidal Dearterialization (THD) TranSTARR / STARR / PPH "Longo" / Milligan-Morgan Anal Fistula Repair Rectal Prolapse Repair 		
Lectureship	 School of Specialization in General Surgery, Medical School, University of Milan (Italy) Medical School of Medicine University of Milan (Italy) 		
International Course Management	 Mucopexy – Recto Anal Lifting (MuRAL) Transanal Hemorrhoidal Dearterialization (THD) Procedure for Prolapse and Hemorrhoids (PPH) 'Longo Method' 		
Dissertations	 Surgery: "The Surgery of Lung Cancer with Chest Wall Infiltration" (2000) Doctoral: "Hepatic Resection for Primitive and Secondary Liver Pathology" (1994) 		
Clinical Studies & Publications	 Coordination and collaborations: clinical studies (thoracic, visceral, coloproctology). Author and co-author of numerous articles; complete list available on request. 		



Educational Background	 MBA School of Management, University of Bradford (UK) Senior Partner, The Mikan Group LLC (USA) Executive Director and Co-Owner, Bucatani Pte. Ltd. (Singapore) General Manager and Co-Owner, S&C Enterprises Ltd. (Cyprus) 		
Current Positions			
Healthcare Industry Expertise	 Healthcare Industry Executive for > 30 years Medical Imaging (x-Ray / CT / MRI); Coloproctlogy; OR Patient Positioning & Safety Business Development; Mergers & Acquisitions Distribution Network Management EMEA, Asia, Latin America Organizational & Operational Development of Healthcare Businesses Developed and Implemented Clinical Marketing Strategies Led Strategic Management, Business Development Projects for SMEs Established and Managed Operations in EU, China, Russian Federation and Japan 		
Professional Background	 General Manager, Medrad MET Beijing Ltd. (China) Executive Director Global Distributor Network, Medrad Inc. (USA) Managing Director, Medrad Europe B.V. (The Netherlands) Director Sales & Marketing EMEA, Medrad Europe B.V. (The Netherlands) 		



Mucopexy – Recto Anal Lifting

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Eligibility Matrix

Mucopexy – Recto Anal Lifting

Eligibility Matrix

Recommending to not select such complex cases for the workshop

Patient Affected by	Eligible	Patient Affected by Multiple Conditions	Conditionally Eligible
Prolapsed Hemorrhoids	Yes	Multiple Conditions	
Recurrent Prolapsed Hemorrhoids	Yes	Prolapsed Hemorrhoids & Pelvic Floor Incoordination Dysfunction	PFID has to be resolved before considering MuRAL
Patient Affected by	Eligible		
Prolapsed Hemorrhoids & Rectocele	Yes	Prolapsed Hemorrhoids & Cystocele	Treatment protocol to include MuRAL complementary to resolving Cystocele
Recurrent Prolapsed Hemorrhoids & Rectocele	Yes	Prolapsed Hemorrhoids & Pelvic Organ Prolapse (POP)	Resolving POP followed by MuRAL (same intervention or in 2 steps)
Patient Affected by Multiple Conditions	Eligible Managing Conditions during one Intervention	Patient Affected by	Not Eligible
Sphincter Hypertonia Step 1: resolve sphincter hypertonia & Prolapsed Hemorrhoids Step 2: MuRAL		Prolapsed Hemorrhoids & Rectal Fistula	Rectal fistula has to be resolved before considering MuRAL
Prolapsed Hemorrhoids Step 1: 1	MuRAL	Recurrent Prolapsed Hemorrhoids	Abscess has to be resolved
& Anal Fissure Step 2: 1	resolve anal fissure	& Abscess	before considering MuRAL



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Procedure Management (Preoperative) *Patient Related*

	Depends on patient's condition; adjusting medication & diet might be required several days before the intervention.
Adjust Medication & Diet	Patients to stop treatment of hemorrhoids with STEROID based creams several weeks before the intervention.
	Recommending treatment with Bioflavonoids for 2 weeks prior the intervention.
Bowel	Educate patients to not take LAXATIVE before the intervention.
Cleansing	ENEMA – STONGLY RECOMMENDED morning before surgery.
Antibiotic ProphylaxisRECOMMENDED Determined by surgeon during preoperative assessment.	
	GENERAL ANESTHESIA OF SHORT DURATION (i.e. Propofol & Oxygen Mask).
Anesthesia Choices	SPINAL ANESTHESIA with HYPERBARIC PRILOCAINE (L2-L4) Hyperbaric Prilocaine provides a fast spinal block onset; patient recovers faster due to an accelerated spinal block regression; low incidence of transient neurologic symptoms (TNS); additional information on the subject is outlined in the background info section.
Positioning on OR table	LITHOTOMY position recommended (facilitates the natural descent of the prolapse).



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Procedure Management (Preoperative) *Procedure Essentials*

HemorPex System® <i>Plus</i> (apply lubricant prior to utilization)	1 unit	
Slowly absorbable braided PGA suture 0 USP 3.5 EP – 26mm (or 27 mm) 5/8c	6 units (male patient) 7 units (female patient with rectocele) USE NEW SUTURE AT EACH LOCATION	
Wax coated braided silk suture #1 C – 17 cutting 3/8 ▼39mm	1 unit (fixation of HPS® Plus)	
Fenestrated drape: (122x152cm Fen 12x15cm)	1 unit	
Scissor: (Mayo straight 14 cm)	1 unit	
Needle holder: (Mayo-Hegar 20cm with TC tips)	1 unit	
Forceps Debakey (18cm 7.2")	1 unit	
Gauze 10x10cm	10 units	
Antiseptic solution	Preoperative skin preparation	



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Mucopexy – Recto Anal Lifting

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Background Information

Mucopexy – Recto Anal Lifting Spinal Anesthesia with Hyperbaric Prilocaine

Spinal anesthesia should be performed at L2-L4 intervertebral space, which is the most appropriate level to provide good coverage to the recto anal area.

Background Info

- There are a series of drug combinations that can be used for spinal anesthesia; unfortunately there are some challenges associated with spinal anesthesia but they are still less problematic versus exposing patients to general anesthesia.
- Patients receiving spinal anesthesia for surgeries of longer duration can be affected by prolonged sensory & motor block and urinary retention, which can cause a delay in discharge.
- MuRAL is an intervention of short duration and the aim is to avoid prolonged sensory & motor block as well as urinary retention.
- Advantages of spinal anesthesia with hyperbaric Prilocaine:
 - □ It provides a fast spinal block onset baricity of the anesthetic agent is the main factor influencing the distribution of the agent in the subarachnoid space.
 - □ Patient recovers faster due to the accelerated spinal block regression.
 - Low incidence of transient neurologic symptoms (TNS).

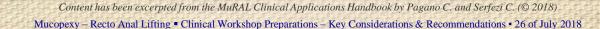
Mucopexy – Recto Anal Lifting *Factors Influencing Stability of Suture*

> Type of Thread:

- Slowly absorbable braided Polyglycolic Acid coated suture.
- □ Maintain maximal strength at least 60 days.

Suturing Technique:

- Distance between sutures preferable between 2-4mm; should not exceed 5mm.
- □ Mucosa & sub-mucosa grabbed with each needle passage should not exceed 1 cm.
- Total number of passages depends on the size of the prolapse (MuRAL – applied only to the inflamed mucosa).
- □ Formation of fibrosis and scar retraction will enable the lifting effect and anchor permanently the mucosa and sub-mucosa to the muscular wall beneath.
- □ The selective approach in performing MuRAL will not be negatively affected by the dynamics of the rectum because the procedure:
 - Has a 360° scope.
 - Takes advantage of the anatomic architecture.
 - Provides a solid foundation for the development of a fibrosis basket, which maintains the permanent lifting through multi-dimensional stability.



Confidentiality & Disclaimer Notice

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Confidentiality & Disclaimer Notice

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The information contained in this presentation is for the exclusive use of Kha Bangkok Co. Ltd. and selected Key Opinion Leaders whom desire to organize at their clinic a MuRAL Clinical Workshop.

Procedures must be performed by a physician specialized in colorectal surgery after determining if the patient's condition meets all requirements associated with the procedure and the delivery of medical services is performed in compliance with the local legislation & regulations.

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