

Umbilical hernia under local anaesthesia: tips & tricks

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Disclosure slide for speakers at further training events

Disclosure of speaker's interests	
(Potential) conflict of interest	None
Potentially relevant company relationships in connection with event ¹	
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Umbilical hernia

- Mayo repair
- Small retromuscular prosthesis
- Rives-Stoppa repair
- IP umbilical repair (PVP)
- IP laparoscopic repair

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How to do it

- Take time
- EMLA + paracetamol + alprazolam (?)
- Slow injection
- Room temperature
- pH

No IV line, no antibiotics

LA and pH

Anaesthetic	pH	Quantity of NaHCO ₃
Lidocaine 1%	5.8	7.4%
Lidocaine 2%	5.74	10.7%
Mepivacaine 1%	6.25	8.2%
Mepivacaine 2%	5.18	13%
Procaine 1%	4.51	2%
Procaine 2%	4.4	3%
Ropivacaine 0.75%	5.8	NA
Bupivacaine 0.5%	6.18	NA

LA, dose & volume

Anesthetic	Max dose (weight)	Concentration	Max Volume (ml)
Lidocaine	500 mg	0.5%	100
		1%	50
		2%	25
Mepivacaine	500 mg or 7 mg/kg	1%	60
		2%	30
Procaine	1000 mg or 12 mg/kg	0.5%	200
		1%	100
Bupivacaine	150 mg or 7 mg/kg	0.25%	60
		0.5%	30
Ropivacaine	225 mg or 3 mg/kg	0.75%	30

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LA: toxicity

- Neurotoxicity
- Cardiotoxicity

- Direct injection in blood vessel

- Allergy: very rare

LA neurotoxicity

- Paresthesia of the tongue
- Metallic taste in mouth
- Tremor, dysarthria
- Loss of consciousness
- Convulsions

LA cardiotoxicity

- Myocardial depression

Umbilical LA: contraindications

- Dementia, stress +++
- Unability to stay on the operative table for 1 hr
- Unreducible or strangulated hernias
- Hypersensitivity to local anaesthesia

- Relative CI:
 - overweight (BMI > 30)
 - young age
 - recurrence

Advantages

- Day-care hospitalisation 100%
- Early mobilisation
- Decrease in complication
- Economic and social benefit
- Decrease chronic post operative pain
- Ask your patient to increase his intraabdominal pressure
- No anaesthetist

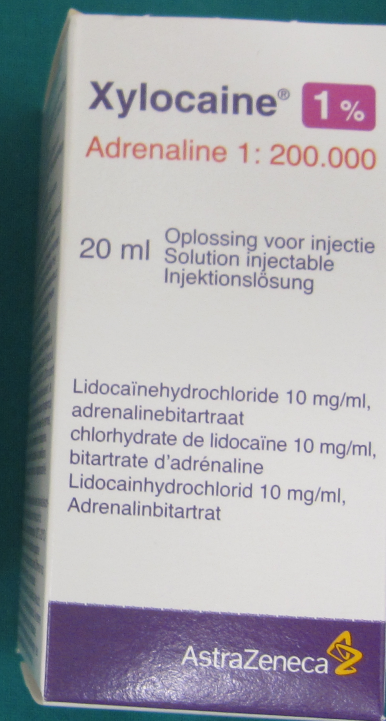
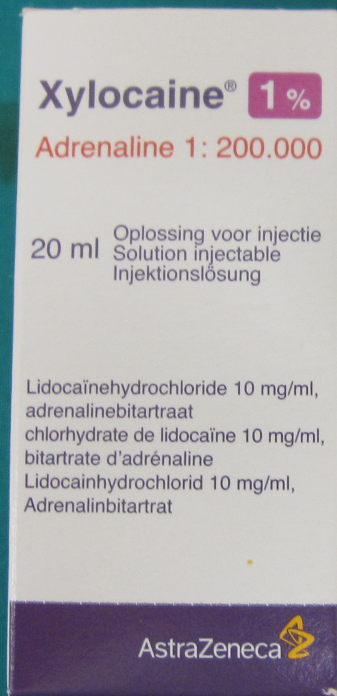
Good 1st patient

- Confident, quiet patient
- Age > 60
- Small, primary, UH, scheduled for Mayo repair
- BMI between 20 to 25

How to do it

- Take time and be confident
- EMLA + paracetamol + alprazolam (?)
- Slow injection
- Room temperature
- pH

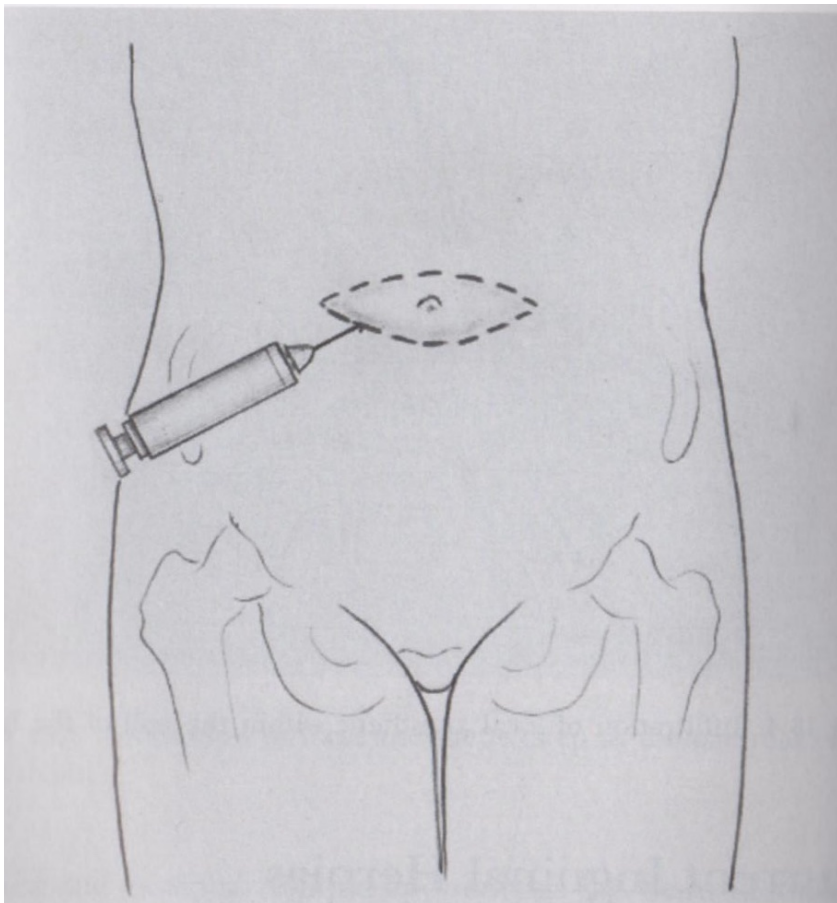




















Take your time, you will save it!

- 10 minutes
 - Take a coffee
 - Take a phone call
- Then go scrubbing















Umbilical hernia under local anaesthetics

- Important tool in the surgeon arsenal
- Gold standard for small UH
- Real minimal invasive repair for UH

