

The new variant of the Guarnieri's technique for inguinal hernia repair indications and technical details



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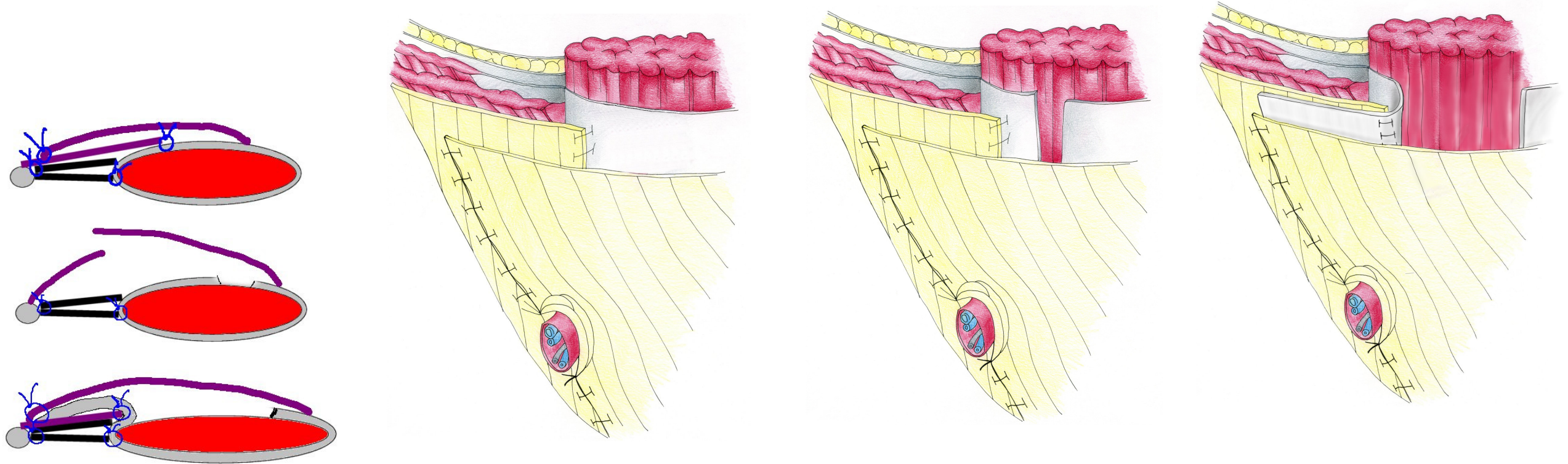


ABSTRACT The basic principle of the Guarnieri's technique is to modify the anatomy preserving the physiology. The anatomy is modified reducing and reinforcing those areas not well represented by the musculature. The physiology is preserved performing sutures without fixing the muscles towards rigid structures like the inguinal ligament. We prefer to avoid prosthesis. This happens in about 5 % of hernioplasties. We are proposing a new variant of the Guarnieri's technique that uses the rectus muscle fascia as a biological prosthesis. The operation changes if a different anatomy is encountered: It is applied when a large inguinal triangle is encountered during the operation, it is basically a tailored surgery.

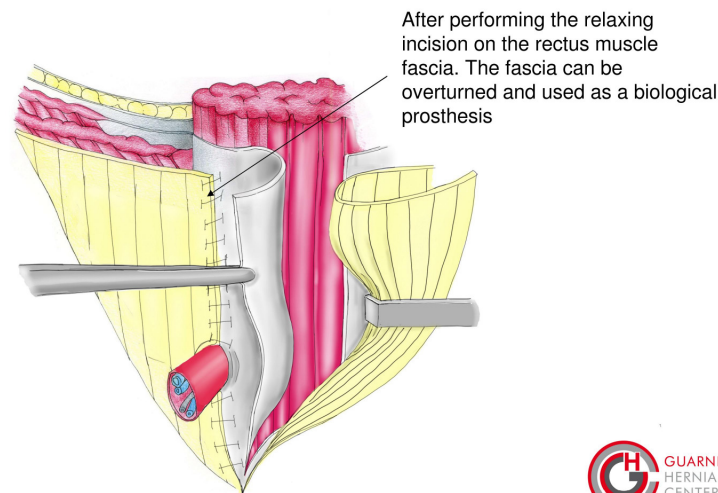
From November 2009 till July 2011 we have performed 102 hernioplasties with this new variant of 428 operations for primary hernias.

The treatment of the deep floor changes regarding the hernia type and follows the steps of the original Guarnieri's technique. The treatment of the superficial floor changes in the new variant. The external oblique aponeurosis is overlapped in a double breast fashion under the cord after the exit of the spermatic cord and over the cord in the same manner where the inguinal canal is well represented by the internal oblique muscle (see picture). In this way a new external ring is created. In the new variant a relaxing incision is performed on the rectus muscle fascia to lateralize the muscle and redistribute its red fibers laterally. The lateral flap of the rectus muscle fascia can be overturned on the external oblique aponeurosis reinforcing it: the lateral flap of the rectus muscle fascia is therefore used as a biological prosthesis.

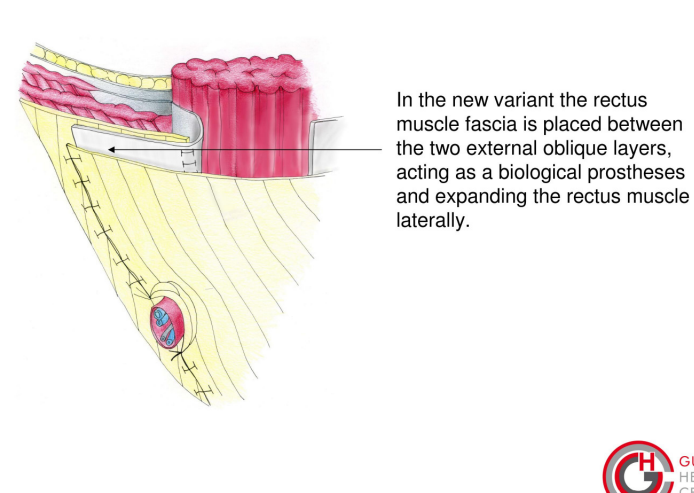
We have calculated that surgeons who are using this variant place the prosthesis only in 6 % rather than the others who use it in 11 %.



Treatment of the superficial layer: The new variant

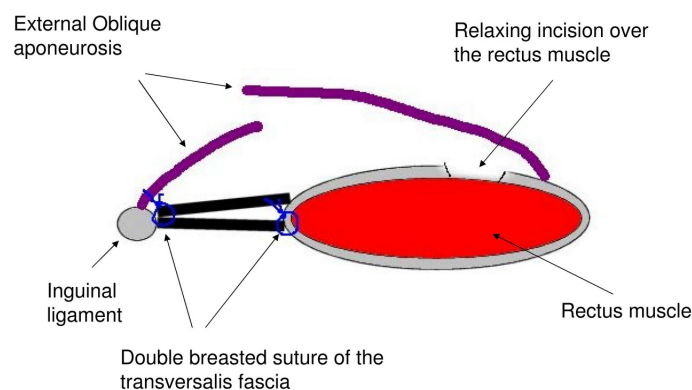


Treatment of the superficial layer: The new variant



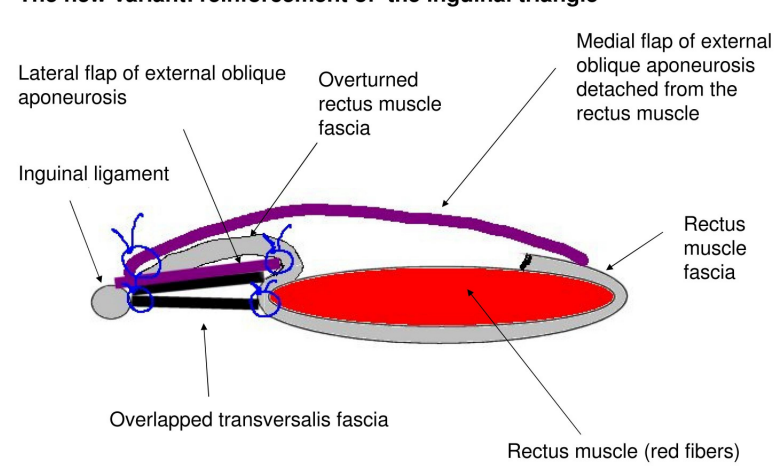
The new variant

The relaxing incision of the rectus muscle fascia expands the rectus muscle towards the inguinal ligament reducing suture tension and reducing the passive area (the area without musculature of the inguinal triangle).



Guarnieri's classic technique: section of the deep floor treatment

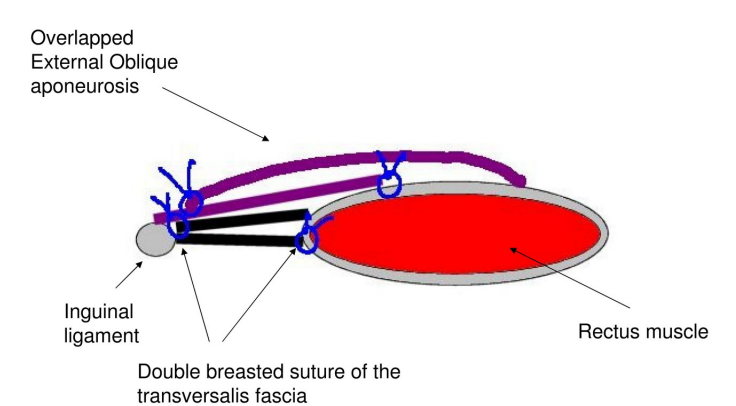
The new variant: reinforcement of the inguinal triangle



The Guarnieri's new technical variant: the incised rectus muscle fascia is overturned over the lateral external oblique aponeurosis

The new variant

This is a section of the Guarnieri's classic technique



Guarnieri's classic technique

	OPERATIONS	PROSTESIS	%	PVS	NPVS
CLASSICAL GUARNIERI TECHNIQUE	35	yes	11%	6	29
	291	no	89%	73	218
NEW VARIANT	5	yes	4%	5	0
	97	no	96%	97	0
	102			% Mesh	6
					11

From November 2009 till August 2010 we have performed 428 Inguinal hernia operations. 326 operations were performed using the original Guarnieri's technique, 102 were performed using the new technical variant. A polypropylene mesh placed preperitoneally was used only in 4 % of patients operated with the technical variant and in 11 % of patients operated with the original technique. Surgeons using the technical variant, utilize the mesh less than surgeons which do not, this is either when they use the technical variant either when they don't.

The new variant represent 24 % of all operations
 PVS = Performing Variant Surgeon
 NPVS = Not Performing Variant Surgeon
 From November 2009 till August 2011
 Surgeons that are using the new technical variant use the mesh less