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HIP LUXATION





VETLIG LTD offers a full range of synthetic ligaments and tendons. Designed specifically for veterinary use, our products are minimally invasive and mimics the original native ligament or tendon we are replacing or reinforcing. Vetlig products aim to regain quicker post operative mobility and quality of life compared to some conventional repairs.

Novalig 2000 - Bu Novalig 4000 - Bu

	K-wire Diameter	Drill Bit Diameter	Screw size	Approx. resistance of the ligament
utton	1.2	2.5	3/3.5	2000
utton	2	3	4	4380

THE CHOICE OF THE LIGAMENT DEPENDS ON ANIMAL'S WEIGHT AND ACTIVITY

The selection criteria for the size of the ligament to be implanted is in relation to the weight of the dog, the level of activity and to be compatible with the bone size:

As an indication:

- 5-15 kg
- 15kg >
- : NOVALIG 2000 : NOVALIG 4000

We use the first and one of the only Medical Grade UHMPWE Fibres in the world to ensure the safety and biocompatibility of the implant for your practice and patients.

Used in million of patients, its design reduces inflammatory reactions and irritation thus speeding up recovery.

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REPLACEMENT OF THE TERES / ROUND LIGAMENT USING THE NOVALIG BUTTON.

SURGICAL TECHNIQUE DEVELOPED BY PHILIPPE BUTTIN DMV, MRCVS, DESV & WRITTEN BY HELENE LE POMMELLET DMV, MS, DACVS







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SURGICAL APPROACH : ASEPTIC TECHNIQUE TO BE USED AT ALL TIMES

A standard craniolateral approach of the hip is performed. The insertion of the muscles cranial and caudal to the distal greater trochanter must be elevated in order to be able drill both femoral tunnel adequately.

The joint is fully assessed for any condition that could contra-indicate reduction of the luxated hip; such as severe cartilage damage, articular fracture.



DRILLING OF THE FEMORAL TUNNEL



The femoral head should be luxated to gain access for drilling the first tunnel using the drill guide. (jig).

The tip of the drill guide is positioned into the fovea capitis and the other end of the guide is placed at the distal end of the greater trochanter onto a slightly caudal position on the proximal femur. Care must be taken to adapt the angle to the patient's neck angle of version to avoid exiting at the wrong point of the femoral neck and/or head.

The second tunnel (distal one) is drilled parallel to the sagittal plane of the femur and distal to the exit of the first proximal tunnel.

For each tunnel a 2.0mm guide wire is inserted first and then a cannulated drill bit is drilled over the guide wire. The diameter of the drill bit is relative to the size of the implant used. After drilling each tunnel is cleared of debris using sterile saline; flushed with a 20 cc syringe. The distal tunnel is pre compacted using the screw that will later be used to fix the Novalig. The interference screw is screwed in and out to facilitate the placement of the ligament later. The appropriate length of the screw is measured using a depth gage.



DRILLING OF THE ACETABULAR TUNNEL



The visualisation of the acetabulum can be facilitated using a Hohmann retractor to retract the femur caudally.

A tunnel is drilled at the footprint of the round ligament using the same 2 steps used for the previous tunnels. Do not over drill too deep or you could cause iatrogenic injuries to intra pelvic structures such as the colon.



PASSING OF NOVALIG

First, the cortical button is pushed through the acetabular tunnel using forceps, then tension is applied to the ligament, so that the button lies flat against the medial wall of the acetabulum Then a wire loop is placed through the proximal tunnel from outside in so the leader thread of the ligament can be pulled through the proximal tunnel. While applying tension, the luxation is reduced. Once the appropriate tension is applied a Kocher clamp can be placed against the femur on the ligament to temporarily maintain the tension.

Finally the same wire loop is fed into the distal tunnel from cranial to caudal and the ligament is pulled through the tunnel.

Tension is now applied with the leg in a physiological position and the Kocher clamp can be positioned at the end of the ligament against the cranial wall of the femur to secure the tension.

FIXATION OF THE LIGAMENT



The distal end of ligament is fixed in the femur using an interference screw. The screw is positioned from caudal to cranial. To allow good positioning, a blunt K-wire is place in the tunnel to make sure the ligament lies nicely on one side of the tunnel and that the screw will lay on the opposite side without crossing the ligament. The screw is tightened and the end of the ligament is cut flush to the bone.

If possible the articular capsule is sutured as usual and the surgical site is flushed using sterile saline.

The surgical approach is closed as usual.

POSTOPERATIVE CARE

No immobilisation, Control the activity of the dog, leash. Strict rest for 6 weeks.





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NEW IMPLANT - NOVALIG WITH CORTICAL BUTTON





1 - Fix	ation tunnel		2 - Glidding tunnel							
1		1			Minimum Tunnel Ø	for th	e ligament	1000		
	V				EXTRATAPE / NOVATAPE		2 mm			
5-0			1		NOVATEN / NOVALIG 2000		2.5 mm			
			Y	-	NOVATEN / NOVALIG 4000		3.0 mm	`		
					NOVATEN / NOVALIG 8000		3.6 mm			
		(C)		14	NOVALIG 2000 - PLATINE		3.0 mm			
					NOVALIG 4000 - PLATINE		3.6 mm			
	↓	1	VB : Tur	nnel diamete	er only needs to fit the ligame	ent.		NB : To pu		
Step	1 : Choose the c	appropriate dril	l bit s	ize		Step	2 : Fit the	tunnel fo		
COR	TICAL BONE			BONE			Screw Ø	Tap/cor		
rew Ø	Drill bit Ø	Screw Ø		Drill bit Ø		_	0			
3	▶ 2.5 mm	3		2.0 mm		_	3	3		
3,5	▶ 3.0 mm	3,5		3.0 mm		_	3.5	3.		
	2 (2.0	_		1	/		

WHAT KIND OF BONE TUNNEL AM I DRILLING ?

3 - Button tunnel



NB : To push the platine through the tunnel

Ste	əp 1 : Ch	noose the app	oropriate dril	l bit s	ize
cc	ORTICAL B	ONE	CANCE	ELLOUS	BONE
Screw Ø		Drill bit Ø	Screw Ø		Drill bit Ø
3		2.5 mm	3		2.0 mm
3,5		3.0 mm	3,5		3.0 mm
4		3.6 mm	4		3.0 mm
4,5		4 mm	4,5		3.6 mm
			5		4.0 mm
			6		4.5 mm
			7		5 mm

NB : Make sure the screw diameter remains <1/3 of the bone diameter & choose the screw that will fill entirely (when possible) the tunnel length

BEST PRACTICE GUIDELINES

Bone tunnel diameters must correspond to the specific reference for each ligament.

Ligaments must be fixed with non-resorbable Vetlig/Novetech interference screws at least 1mm larger than the tunnel diameter and the longest length possible.

Use the 2mm K wire to drill the pilot holes with the jig, if using the 3.6mm drill, the 1mm wire is for 3mm drill and screw placement only and will damage your cannulated drill if used with the 3.6mm drill. A smaller cannular for the 1mm guide wire is available.

Always drill with the 2.0 mm sharp guide wire, then swap it out for the 1.2mm if you are using the 3mm or 2mm drill, if you try and drill with the 1.2 mm guide wire it can migrate and not come out where you need it to be, so use the 1.2mm for overdrilling with the cannulated drills.

If you are struggling to pass the ligament through the tibial tunnel, try squeezing it with forceps and feeding it through or debride the entrance of the tunnel.

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