Vascular-Patch

Patch for reconstructive interventions in vascular surgery





Vascular-Patch

Microporous, microfibrous patch material for application in vascular surgery

In the direct closure of endarterectomy a higher incidence of restenoses is observed. The restoration of the flow pattern by patchplasty represents a perfect alternative to direct closure by suturing. Synthetic patch materials have been widely used in this indication, especially in cases where the autologous vein should be spared for subsequent coronary surgery. The following requirements have to be met by a patchmaterial to qualify for the use in vascular surgery:

- good handling properties
- high tensile strength and elasticity
- biocompatibility and good incorporation features
- low thrombogenicity
- long-term stability
- high compliance

Vascular-Patch made of polyesterurethane (PUR) combines all these characteristics which makes it the ideal material for the patch angioplasty.

Product description

Vascular-Patch is produced from a polymer material (polyestherurethane) that is characterised by an excellent biocompatibility and maximum mechanic long-term stability.

During a highly sophisticated production process the polyesterurethane material is formed into a microporous, microfibrous patch. This patch meets the requirement of perfect healing properties, fast formation of a neointima as well as a lack of thrombogenicity.

The outstanding performance of Vascular-Patch is based on the following properties of the polyesterurethane fleece:

- superior compliance
- minimal suture hole bleeding, the suture holes are immediately closed due to the elasticity of the polymer fibres
- no tearing of suture line due to the high tensile strength and elasticity of the patch-material
- excellent moulding properties
- best incorporation features with formation of an uniform neointima
- Iong-term stability

Dog carotid artery (H.E., x150) 39 months post implantation. Formation of a thin neointima on the Vascular-Patch (upper part of the picture). Ingrowth of fibroblast in the microporous patch structure.







Patch-reconstruction after carotid endarterectomy with Vascular-Patch

Handling properties

The microfibrous structure of Vascular-Patch makes preclotting superfluous; the patch-material is blood tight.

Using a sharp surgical instrument the patch can be cut to the required size. The excellent moulding properties ensure an anatomically correct closure of the vessel wall.

The patch should be sutured by using round bodied needles. Due to the high elasticity of the material suture hole bleedings do not occur, suture pull-out is safely avoided.

Function and incorporation

The inner surface of Vascular-Patch is sealed by a fibrinous layer immediately after the release of blood flow.

In animal models the complete patch material is subsequently covered by a neointima originating from the intact vessel wall. The neointima is firmly attached to the Vascular-Patch material and does not show any tendency for hyperplasia. There are no signs of a chronic inflammatory reaction.

Long-term stability

Vascular-Patch is superior due to a high compatibility and very good longitudinal elasticity that is maintained for many years.

Indications

Reconstructive interventions in the regions of

- carotid artery
- profunda
- femoral artery
- iliac artery



A polypropylene suture (Premilene® 3/0) passed through a Vascular-Patch. The elastic polyesterurethane material tightly encloses the suture, preventing needle hole bleeding.

Vascular-Patch

Patch for reconstructive interventions in vascular surgery, made of polyesterurethane material



Product range

Dimensions	Contents	CatNo.
2 x 9 cm	1 piece 2 pieces 5 pieces	1107330 1107267 1107275
1 x 7 cm	1 piece 2 pieces 5 pieces	1107348 1107283 1107291
3 x 4 cm	1 piece 2 pieces 5 pieces	1107356 1107321 1107305



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