

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo PIBIC

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Service (sector)
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Nº CEP
1556/07

PORCINE PERICARDIUM AS GLAUCOMA IMPLANT TUBE COVERAGE – AN EXPERIMENTAL STUDY

Purpose: To evaluate the inflammatory response associated with the use of porcine processed pericardium and glycerin-preserved homologous sclera as tube shunt coverage in rabbit experimental model.

Material and Methods: Eight eyes of eight New Zealand white rabbits were assigned to receive either same-sized glycerin-preserved homologous scleral patches or double-layered porcine processed pericardium that were sutured to bare sclera covering a silicone tube. Conjunctival hyperemia was graded in a masked way on the immediate postoperative period and then at the first, third, and seventh postoperative weeks, and after the seventh week the enucleated eyes were histopathologically examined. They were also evaluated for signs of patch graft melting, tube erosion and chemosis.

Results: There was no occurrence of graft melting or tube exposure although porcine pericardium was associated with more inflammation on clinical observation. Light microscopy revealed marked inflammatory reaction surrounding the porcine pericardium with foreign body granuloma formation. On the other hand, in the sclera group, inflammatory reaction was milder with foreign body granulomas only around the sutures.

Conclusion: Porcine pericardium is associated with significant inflammation when used as tube coverage in a rabbit model at both histopathologic and clinical level, comparing with glycerin-preserved homologous sclera.