Title (en)

PREVENTION OF HYPERACUTE REJECTION IN PIG TO PRIMATE ORGAN TRANSPLANT

Title (de)

VERMEIDUNG DER HYPERAKUTEN ABSTOSSUNG VON ORGANTRANSPLANTATEN VON SCHWEIN ZUM PRIMATEN

Title (fr)

PREVENTION DU REJET HYPERAIGU DANS LES GREFFES D'ORGANES PORC-PRIMATE

Publication

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Application

EP 95919185 A 19950512

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Abstract (en)

[origin: WO9531209A1] The invention provides a method to prevent or ameliorate a hyperacute rejection reaction which would normally occur after transplant of a pig organ to a primate recipient, including a human recipient. Normally, anti-pig antibodies in the blood of the recipient will bind to pig antigens on the endothelial cells of the grafted pig organ, and activate the complement cascade causing necrosis of the pig organ within minutes to hours. The invention method involves passing at least 2-3 plasma volumes of the primate recipient's plasma over a sterile and pyrogen-free column coupled to protein which binds to and thereby removes immunoglobulin from the recipient's plasma, and then transplanting a pig organ to the primate recipient. The column treatment is preferably repeated on several days before and after transplant, and thereby prevents or ameliorates the hyperacute rejection reaction by removing anti-pig antibodies from the recipient's plasma. The method can remove greater than 99 % of the primate recipient's total IgG and greater than 99 % of the recipient's total IgM. The method also effects a 50-500 fold reduction in anti-pig immunoglobulin, and a 15-60 % reduction in potential complement activity. This invention also provides immunoglobulin-depleted human plasma suitable for infusion to a human recipient of a pig organ transplant.

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Citation (search report)

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- See references of WO 9531209A1

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