

Introduction

Currently there is a world wide shortage of cadaver organs that can be transplanted from one human being to another. To meet this need, medical researchers and scientists have developed techniques for transplanting animal organs into humans, a procedure known as xenotransplantation (Ayares & Cooper, 2012).

The following is a brief overview of the possible advantages, disadvantages, and the nursing implications and recommendations relating to xenotransplantation. The information provided is from reputable sources to accompany the research question; “what are the potential advantages and disadvantages of porcine to human xenotransplantation?”

Nursing Implications

As with any transplant procedure, there is a possibility that the recipients body may reject the organ via the immune response as it sees the foreign organ as an invader. Rejection symptoms include; pain at site of transplant, flu like symptoms and weight changes (Groth, 2007). Therefore it is part of the nurses responsibility to be able to recognize and assess for these signs of rejection so they can react appropriately with proper treatment, management and follow up care.

Encouragingly there are now more immunosuppressive drugs available to prevent the rejection of a donor organ. Because treatment is life long , to ensure that the new organ will function, the recipients should be assessed for medication adherence, as well as providing continuous health teaching that addresses patient self-monitoring, developmental needs, healthy behaviors, activities of daily living and preventive self-care (Derenge & Marilyn, 1999).

It can be seen that this procedure may “violate the order of nature” (Groth, 2007, p. 3). This is why it is important for health professionals to be able to be self aware of their own values and beliefs so as to be careful to not impose them on the patients they are work-

Xenotransplantation; Is this the future of organ transplants?

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Clinical Issue

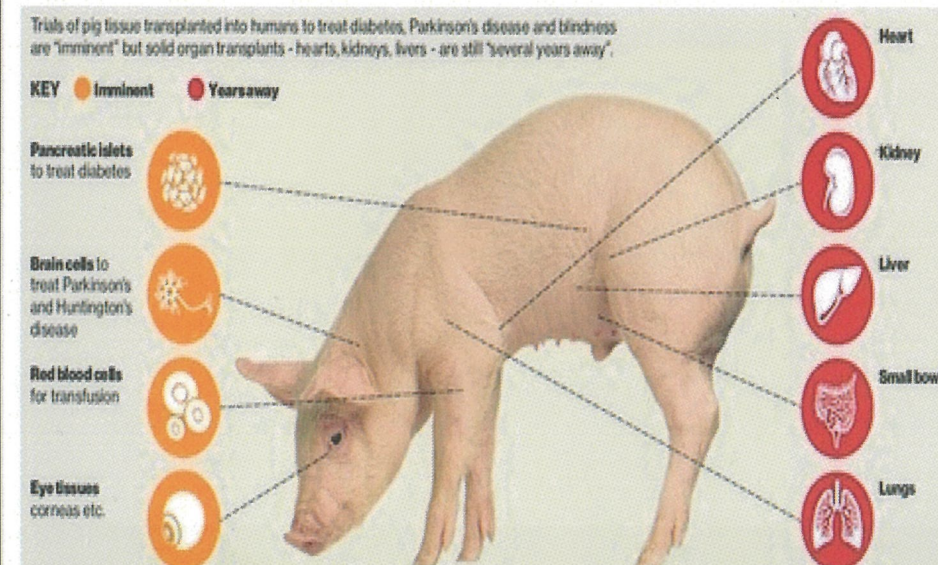
The issue that presents itself is if this procedure is the answer to the current organ shortage or not. Presently, according to Organ donation New Zealand the indications are that the need for organs outweighs the number of organs that can be supplied. Consequently, it is of growing concern that the gap between supply and demand will grow even larger. This supply deficit is principally due to the prevalence of the failure of vital organs due to unhealthy choices (2015).

In modern healthcare today, transplantation surgery plays a significant role in extending and improving the quality of one’s life. The reason for the consideration of pig organs in xenotransplantation is that in contrast to humans, the organs such as the heart, kidneys and liver are in fact very similar physiologically and physically. However, science must first overcome barriers such as the immune system, the potential transmission of infection from pig to human and ethical concerns (Ayares

Recommendations

- Further research into the ethical issues that are raised by xenotransplantation.
- Research into the social and psychological impact on recipients, families and society.
- Educate and raise more awareness about the importance of human organ donation
- Continued health promotion and education about healthy choices

MEDICAL REVOLUTION THE ORGANS THAT COULD HELP



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PICOT

The PICOT framework is a tool used for the development and refining of a research question. It enables the researcher to break down the question into keywords which assists in finding appropriate information related to the research question (Schneider, Whitehead, LoBiondo-Wood & Haber, 2013). The keywords that have been identified for this study are: Xenotransplantation, pig, advantages, disadvantages, benefits, risks, ethics, and history.

P – Patient or	People in need of an organ transplant
I – Intervention of	Xenotransplantation of pig organs
C – Comparison	The advantages and disadvantages of xenotransplantation
O – Outcome	Less time on waiting lists, organs readily available to public. Is xenotransplantation a realistic alternative of the future to help solve human organ shortages, and will minimize the practice of illegal organ trafficking
T – Time frame	Life time

Schneider, Z., Whitehead., D. (2013). Identifying research ideas, questions, statement & hypotheses. In Z. Schneider, D. Whitehead, G. LoBiondo-Wood, & J. Haber. Schneider, Z., Whitehead., D. *Nursing and midwifery research methods and appraisal for evidence – based practice* (4th ed.). (pp. 57-76). Sydney, Australia: Mosby.