Fetal tissue transplantation: time for a Canadian policy

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The ethical issues surrounding the use of fetal tissue for transplantation and research have now been clarified by a distinguished US panel¹ and three recent studies.²⁻⁴ The 21-member Human Fetal Tissue Transplant Panel, which included physicians, ethicists, lawyers and religious leaders, was established by the National Institutes of Health (NIH) in March 1988 at the request of the US government. In May of that year the government also imposed a moratorium on the use of fetuses from induced abortions in research funded by the NIH and the US Public Health Service. The panel's report was issued in December and shortly afterward was approved by the advisory committee to the director of the NIH.¹ The secretary of the Department of Health and Human Services, to whom the NIH reports, will soon be announcing a decision about the lifting of the moratorium.

Other countries have dealt with this issue variably. Some, such as Britain and Sweden, rely on guidelines, whereas others, such as West Germany, have strict embryo protection laws.

In Canada the situation unfortunately remains unclear. In the absence of relevant legislation the guidelines of the Medical Research Council (MRC) of Canada⁵ provide direction for the use of fetal tissue for research. However, the current MRC guidelines on research in human subjects do not specifically address the issue. Although transplantation research is often considered to be innovative therapy the MRC guidelines are said to apply to related clinical trials.⁶ The section dealing with research on fetuses and embryos⁷ does not provide clear direction, but one paragraph could be read as giving blanket approval to the use of aborted fetal

tissue: "Separated tissue . . . may be used in research, subject to the permission of the mother whenever possible and to provincial human-tissue-gift legislation and hospital regulations."

That there is considerable governmental concern in Canada as well as in the United States became clear when the minister of national health and welfare at that time, Jake Epp, reacted sharply to a newspaper report that investigators at Dalhousie University, Halifax, were planning to transplant tissue from aborted fetuses to the brains of patients with Parkinson's disease.⁸ Epp was quoted as saying that he had read the report "with great alarm" and that financing would not be approved for transplantation of tissue from fetuses aborted or developed for that purpose.⁹

To date neither the MRC Standing Committee on Ethics nor the newly established National Council on Bioethics in Human Research (NCBHR) has specifically examined the issues around fetal tissue transplantation (Judith Miller, director, NCBHR: personal communication, 1989). It is not known whether the forthcoming Royal Commission on Reproductive Technologies will be given a mandate to address the matter. Mr. Justice T. David Marshall noted recently in *CMAJ* that "Canadians will . . . follow with interest the position and regulations established in Washington".¹⁰

However, it should not be necessary to await the decisions of the US government before we in Canada determine our own course. The US decisions may well be influenced as heavily by political factors as by ethical and scientific concerns. The Bush administration has inherited from the Reagan administration a strong antiabortion stance, and as Annas and Elias² recently observed, "the final decisions will provide an early signal of President Bush's willingness to let the politics of abortion dictate the course of the research that is done". In that the recent studies have indeed clarified the issues it is now timely to forge a Canadian policy on fetal research and the therapeutic use of fetal material. A collaborative effort involving three

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Canadian university health centres is ready to proceed with fetal brain transplants in patients with Parkinson's disease. In the absence of a clear national policy they will have to rely on the judgement of local ethics committees or delay carefully planned therapeutic research.

Issues involved

There is general agreement on several points. The use of fetal tissue in medical research as a source of cell lines for virus studies and vaccine preparation has been beneficial. Fetal tissue holds great therapeutic promise because of its properties when transplanted: rapid growth, high adaptability and very little host immune response.¹¹ The fetus and its use deserve the same respect and protections of confidentiality and consent as other human cadavers. The use of tissue from abortions induced because the woman's life is at risk or from spontaneous abortions presents no ethical problem. Unfortunately, such tissue is rarely usable for transplantation, given the unpredictability of spontaneous abortion and the high risk that the tissue will be defective or infected.

The disagreements and the main ethical concerns revolve around the following questions: Will the use of fetal tissue for transplantation encourage more elective abortions? Does such use legitimize and condone elective abortion, thereby making accomplices of medical personnel involved in transplantation as well as their institutions and the agencies that fund their work? Does the use of the fetus as a means to help other human beings rather than the fetus's being an end in itself erode the sanctity of human life and contribute to the brutalization of medical personnel and, indeed, of society as a whole?

It is precisely these questions to which recent studies²⁻⁴ call attention. There is no evidence that the mere possibility of using fetal tissue for transplantation will lead to more abortions; this is not surprising given the ease with which abortions can now be obtained without such humanitarian justification. Furthermore, most of the members of the panel reporting to the NIH concluded that even if there were a marginal increase in the number of elective abortions because a few women might be influenced, this should not prevent medical research and treatment that would help many thousands of people. (A minority of the members dissented, believing that research with electively aborted fetuses is inherently unethical.)

A strong argument for the use of such tissue was advanced by the panel. Organs of adults and children who die violently, even by murder, may be used for transplantation, and this does not make accomplices of the transplant surgeons. The therapeutic use of legally aborted fetal tissue is surely no more reprehensible ethically than the use of organs from a murdered child so long as this has not contributed to the abortion or the murder.

A Canadian policy

The NCBHR should now examine the use of fetal tissue in the light of the international findings and should issue clear guidelines for Canadian laboratory and clinical investigators. Local university and hospital ethics committees should not be left to create precedents that will steer national policy, which has been a matter of concern in Britain.¹² Canadian policy should facilitate the ethical use of fetal tissue for research and treatment. This will require strict delineation of the conditions under which fetal tissue from elective, therapeutic and spontaneous abortions may be made available, with a view to protecting the autonomy and welfare of the donor, the respect due to fetuses as potential human beings, the welfare of transplant recipients and the larger interests of society.

The guidelines must ensure a clear separation of all the decisions related to the abortion and the intended use of the tissue. This in turn will require that neither the woman nor the medical personnel conducting the abortion receive any inducement or reward for making the fetal tissue available. Anonymity between donor and recipient is crucial. Informed consent of the woman is necessary and is probably sufficient, although it could be argued that the father's approval should also be required.

Two other important ethical issues will need to be considered by the NCBHR, although neither is specific to fetal tissue use. The first relates to the premature clinical application of problematic and potentially hazardous procedures. Although the US panel determined that "there is sufficient evidence from animal experimentation to justify proceeding with human clinical trials in Parkinson's disease and juvenile diabetes",¹ incautious, premature and uncontrolled clinical application has already occurred in the areas of adrenal medullary autografts and fetal tissue heterografts in patients with parkinsonism.¹³ Patients need to be protected from exposure to procedures that are presented as therapeutic innovations by ambitious and enthusiastic clinicians when, in fact, they are still experimental. Therefore, fetal tissue transplantation at this time ought to be controlled and restricted to those few centres where authoritative scientific monitoring can be assured.

The other general ethical issue relates to the social consequences of the pragmatic, permissive societal attitude that condones abortion on demand, euthanasia and the unrestricted use of fetal tissue on the grounds of moral relativism. Is there a danger that the value of preserving human life will be diluted and medical personnel rendered less sensitive to their primary mission? This is a fundamental concern that calls for the collaborative attention of ethicists, legal scholars, physicians and, indeed, society as a whole. However, the establishment of Canadian guidelines for the ethical application of fetal tissue should not be delayed while this issue is being examined.

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Conferences

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Apr. 18-21, 1990: Aging into the 21st Century
Ottawa Congress Centre

Christine Blais, Conference Office, School of Human Kinetics, University of Ottawa, 123B-125 University Priv., Ottawa, Ont. K1N 6N5; (613) 564-9291

Apr. 22-24, 1990: Canadian Life Insurance Medical Officers Association 45th Annual Meeting
L'Hotel, Toronto

Dr. Thomas Porter, president, Canadian Life Insurance Medical Officers Association, c/o medical director, Imperial Life Assurance Company of Canada, 95 St. Clair Ave. W, Toronto, Ont. M4V 1N7; (416) 926-2690

May 6-9, 1990: Association of Records Managers and Administrators 6th Canadian Records Management Conference

Halifax World Trade and Convention Centre
R. Dagenais, Export Development Corporation, 151 O'Connor St., Ottawa, Ont. K1P 5T9; (613) 598-2500

May 20-25, 1990: 8th International Congress on Circumpolar Health — Community Health: Problems and Solutions in the North

Yukon College, Whitehorse
8th International Congress on Circumpolar Health, 801-750 Jervis St., Vancouver, BC V6E 2A9; (604) 681-5226; FAX (604) 681-2503

May 22-24, 1990: 3rd S.M. Dinsdale International Conference on Rehabilitation

Ottawa Congress Centre
Education Department, Rehabilitation Centre, 505 Smyth Rd., Ottawa, Ont. K1H 8M2; (613) 737-7350, ext. 602; FAX (613) 737-7056

May 25, 1990: 1st Annual National Rehabilitation Nursing Conference and 2nd Annual Meeting of the Canadian Association of Rehabilitation Nurses
Rehabilitation Centre, University of Ottawa
Education Department, Rehabilitation Centre, 505 Smyth Rd., Ottawa, Ont. K1H 8M2; (613) 737-7350, ext. 602; FAX (613) 737-7056

June 3-6, 1990: Canadian Dietetic Association Annual Conference: "Dare to Grow"

Ottawa Congress Centre
Joan Wyatt, chair, Conference Planning Committee, Royal Ottawa Rehabilitation Centre, 505 Smyth Rd., Ottawa, Ont. K1H 8M2; (613) 737-7350, ext. 544

June 3-6, 1990: Choices — Long-Term Care in the 90s — a Decade of Change (sponsored by the Alberta Long Term Care Association and the Canadian Long Term Care Association)

Calgary Convention Centre
Alberta Long Term Care Association, 1010 CN Tower, 10004-104 Avenue, Edmonton, Alta. T5J 0K1; (403) 421-1137, FAX (403) 426-0479

June 7-9, 1990: American Society for Bariatric Surgery 7th Annual Meeting

Royal York Hotel, Toronto
Dr. Thomas J. Blommers, executive manager, American Society for Bariatric Surgery, Box 639, 633 Post St., San Francisco, CA 94109

June 10-14, 1990: 6th International Congress on Breast Diseases (sponsored by the International Society of Senology and the American Cancer Society)

Hynes Convention Center, Boston
Congress Secretariat, Office of Continuing Education, Tufts University School of Medicine, Box 36, 136 Harrison Ave., Boston, MA 02111; (617) 956-5657, FAX (617) 956-0314

June 12-15, 1990: Canadian Hospital Association Annual Conference: Caring for Medicare

Centennial Auditorium and Holiday Inn, Saskatoon
Conferences, Canadian Hospital Association, 100-17 York St., Ottawa, Ont. K1N 9J6; (613) 238-8005

June 15-19, 1990: Canadian Anaesthetists' Society 47th Annual Meeting

Hyatt Regency Hotel, Vancouver
Ann Andrews, executive director, Canadian Anaesthetists' Society, 187 Gerrard St. E, Toronto, Ont. M5A 2E5; (416) 923-1449

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