Ethical Reflections on Vaccines Using Cells from Aborted Fetuses

Very Rev. Angel Rodríguez Luño

In many quarters ethical reservations are being expressed about the use of vaccines that are produced in a manner that is in any way connected with voluntary abortion. Several authors have dealt with the problem in recent years, sometimes prompted by the misgivings of those who could make use of the vaccines. Even the Pontifical Academy for Life devoted a one-day session to the study of this problem. The reflections in this essay are meant as a synthesis of and commentary on the ethical guidelines that have emerged from such deliberations, although the way in which they are formulated here is my responsibility alone.

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¹ See, for example, E. J. Furton, "Vaccines Originating from Abortion," *Ethics & Medics* 24.3 (March 1999): 3–4; D. Maher, "Vaccines, Abortion, and Moral Coherence," *National Catholic Bioethics Quarterly* 2.1 (Spring 2002): 51–67; E. J. Furton, "Vaccines and the Right of Conscience," *National Catholic Bioethics Quarterly* 4.1 (Spring 2004): 53–62.

² The text of the opinion developed by the Pontifical Academy for Life ["Riflessioni morali circa i vaccini preparati a partire da cellule provenienti da feti umani abortiti"] appears in the Documentation section of *Medicina e Morale* 55.3 (May/June 2005): 618–626. [The English translation is reprinted on pp. 541–549 of this issue .]

The Problem

Let us look first at the parameters of the moral problem. The first point to consider is that widely used vaccines against diseases such as rubella, hepatitis A, and varicella [chickenpox] were developed with virus strains obtained from human fetuses that had been voluntarily aborted (this is the case with strain RA 27/3 of the rubella virus³), or were derived by attenuating the virus through successive passes in human diploid fibroblast cultures, mainly WI-383⁴ or MRC-5,⁵ which also came from voluntarily aborted fetuses. Included in this category are, for example:

- The single-purpose vaccines against rubella, such as Meruvax II (Merck, United States), Rudivax (Sanofi Pasteur, France), and Ervevax (RA 27/3⁵) (GlaxoSmithKline, Belgium)
- The multipurpose vaccines against rubella, measles, and mumps, such as M-M-R II (Merck), Trimovax (Sanofi Pasteur), and Priorix (GlaxoSmith-Kline)
- The Varivax vaccine against chickenpox (Merck)
- Vaccines against hepatitis A produced by Merck, GlaxoSmithKline, and others

A second factor to keep in mind is that some of these illnesses, such as rubella, have been and in some parts of the world still are epidemic. The infection of a pregnant woman causes serious adverse effects and can lead even to the death of the fetus. The rubella epidemic that started in Europe in the early 1960s and reached the United States in 1964 caused twenty thousand cases of congenital rubella in the United States. Rubella epidemics continue to be reported every four or five years in developing countries that have not yet implemented vaccination campaigns. From an epidemiological perspective, vaccination on a large scale is indispensable in the battle against this and other infectious diseases. With regard to this ongoing effort, it should be noted that the RA 27/3 vaccine against rubella has proved to be remarkably safe and effective, and its side effects are minimal.

³ The RA27/3 virus was isolated in the Wistar Institute in 1965 using clinical tissue samples from a surgically aborted fetus that had been infected with rubella (German measles). See S. A. Plotkin, D. Cornfeld, and T. H. Ingalls, "Studies of Immunization with Living Rubella Virus: Trials in Children with a Strain Cultured from an Aborted Fetus," *American Journal of Diseases in Children* 110.4 (October 1965): 381–389.

⁴Wistar 38 (WI-38) cells are a cell line of human diploid fibroblasts obtained by L. Hayflick around 1964 in the laboratories of the Wistar Institute, using pulmonary tissues from an embryo that had been aborted in the third month of gestation because the parents thought they already had enough children. See L. Hayflick, "The Limited In-Vitro Lifetime of Human Diploid Cell Strains," *Experimental Cell Research* 37 (March 1965): 614–636; and G. Sven, S. Plotkin, and K. McCarthy, "Gamma Globulin Prophylaxis, In-activated Rubella Virus, Production and Biological Control of Live Attenuated Rubella Virus Vaccines," *American Journal of Diseases of Children* 118.2 (August 1969): 372–381.

⁵MRC-5 cells are a cell line of human diploid fibroblasts obtained by J. P. Jacobs in 1966 using pulmonary tissue from a fetus that had been aborted in the fourteenth week of gestation. See J. P. Jacobs, C. M. Jones, and J. P. Baille, "Characteristics of a Human Diploid Cell Designated MRC-5," *Nature* 227.5254 (July 11, 1970): 168–170.

The third component of the problem is the fact that in Japan, approved vaccines against rubella and hepatitis A have been prepared without the use of human cells extracted from aborted fetuses. These vaccines represent a practical alternative, but they have not been approved by the Food and Drug Administration, and therefore have not been marketed in the United States. As far as I know, they are not widely available on the world market. Varicella is the only disease for which there is no vaccine that is free of any connection with abortion.

The ethical issue raised by doctors responsible for vaccination campaigns and by those who must use the vaccines, especially parents who must vaccinate their own children, is whether the use of vaccines prepared with cells from aborted fetuses is not contrary to the ethical rejection of all forms of voluntary abortion. Would not the use of these vaccines be a form of real cooperation in that evil? Before responding to this question, we should consider the modalities and degrees of cooperation in evil.

Modalities and Degrees of Cooperation in Evil

Generally, cooperation in evil is understood to mean the action of a person who participates or collaborates in some way in the performance of a morally wrong act by another person, who is the principal agent.

This notion is true, but partial, because it corresponds to only one modality of cooperation, whereas in reality there are many. Think, for example, of the modes of cooperating in the counterfeiting of money: participating in the printing of counterfeit bills, providing suitable paper and ink to the principal agent while knowing how he will use them, bringing the bills into circulation, consciously agreeing to be paid in counterfeit bills or to use them in any way. Someone who accepted counterfeit bills for free would also be cooperating, because it would be inconsistent to declare, "I do not approve of your counterfeiting, but once the bills have been produced I will take them and use them if you give them to me." In that case there is passive cooperation, i.e., cooperation through culpable omission on the part of someone who, while aware of what is going on, does not denounce or prevent it, although he is in a position, and has the duty, to do so. Furthermore, there could be a cultural and social kind of cooperation, which would occur if in a given social setting the counterfeiting of money was defended or considered an acceptable social practice.

In all these modalities, the cooperation can have various degrees.⁶ We must distinguish first between formal cooperation and material cooperation. Formal cooperation occurs when someone approves of another person's morally wrong action and hence freely concurs in it. Material cooperation, on the other hand, in no way involves approval of the immoral action performed by another. That person receives assistance from me either because the collaboration is forced on me or because the assistance takes place as an inevitable collateral effect of an action that I must perform for another important reason.

⁶ Here I summarize my presentation in *Etica* (Florence: Le Monnier, 1992): 119, 264–266.

Material cooperation can be immediate or mediate. A person cooperates immediately when he participates in the actual performance of the immoral act—for example, the nurse who helps a surgeon perform an abortion. A person's cooperation is mediate when he makes available the means for the immoral act or creates conditions favorable to it. Mediate cooperation, in turn, can be proximate or remote, depending on the physical or moral proximity and on the ambiguity of the relation between the act of the cooperator and the act of the principal agent.

Formal cooperation in an ethically wrong act is always morally illicit. Material cooperation should generally be avoided, although it may be morally acceptable if reasons exist for performing the action that are proportionate to the seriousness of the evil in which one is cooperating and, furthermore, if the requisite conditions are present which render licit the performance of an action that has a collateral negative effect (the indirect voluntary). At any rate, it is generally admitted that immediate material cooperation in a serious crime against life or against justice is not morally licit; thus, for example, a soldier would have to make a conscientious objection if he were commanded to perform an action that was manifestly a war crime (such as genocide or the direct execution of innocent civilians).

Specific Ethical Considerations on the Use of Tissues Obtained by Voluntary Abortion

Cooperation in isolated actions that the state considers illegal and of which the public disapproves can be understood in a rather restricted sense. In such situations we limit ourselves to identifying the accomplices, i.e., those who have taken part in the action or have played a decisive role in making it possible.

Things are different today with regard to abortion and the use of tissues obtained from aborted fetuses. Voluntary abortion today is not an isolated action, nor is it performed infrequently. It is considered by the state and by broad segments of the public to be a non-punishable act (under Austrian law, for example), if not an absolute right (as in decisions of the U.S. Supreme Court). It is performed by professionals who ought to be guardians of health and human life. And it has impressive cultural, political, and economic support. Added to this is the fact that methods of technologically assisted procreation have resulted in the storage of thousands upon thousands of frozen embryos, which are destroyed after a certain time or destined for scientific experimentation or industrial uses. A culture has thus been created in which the human being in the embryonic state is considered a sort of "pre-thing" ("pre-embryo"), utterly at the disposal of others for the most varied purposes, with the added "advantage" that commercialization is generally not permitted, so it can be obtained at little or no cost.

The existence of such a culture lends great ethical relevance to the passive modalities of cooperation, as well as those of a cultural and social nature and some precise modalities of remote cooperation. It is no longer possible to limit oneself to avoiding immediate, active modalities of cooperation ("not getting your hands dirty directly"). Working for a culture of life entails an active commitment to rectifying the structures in which one is involved, for professional or other reasons, by opposing in lawful and reasonable ways the assaults on human life and the culture that sustains them. No one—citizens, physicians, or researchers—can consider themselves mere passive observers

of injustices committed by others, content that they are not personally the immediate cause of the injustices or direct accomplices in the active, proximate sense.

There are practices that go on in the silence of the scientific or industrial laboratory that the average citizen does not know about, the true significance of which he would not even be able to comprehend, given that they are very complex and highly specialized. The only ones who know about them and understand them are other researchers, who therefore have the ethical duty to inform the public about them and oppose them in whatever way possible. From this it follows, among other things, that it is morally illicit to agree to take, for one's own research, even at no cost, material obtained by means of the destruction of embryos by colleagues from other laboratories or research institutes.

With regard to this matter, the criterion of independence formulated by some ethics committees is thoroughly inadequate—a criterion which asserts that it is morally licit to use such biological material so long as there is a clear separation between the medical personnel or the health-care institution performing the abortion and the researchers or the research institute conducting the scientific experiments. The criterion of independence is not enough to avoid the moral contradiction of someone who declares, "I do not approve of what you are doing, because I think that it is a serious injustice, in which I do not want to be personally involved in any way," and then adds, "But I will take for my work the biological material that you obtain by means of that injustice." For the same reason, one must avoid (1) participating in the marketing (either selling or buying) of products obtained through immoral methods and (2) contributing in any way to creating a demand for such products. One must also avoid (3) fostering a social climate of approval that would perpetuate the abuses and the injustices.

Ethical Considerations in the Use of Vaccines

The individuals and institutions that have expressed ethical reservations concerning the use of vaccines connected to abortion understand well what has just been stated. Their reservations do not follow from an exaggeration of the efficient causal relationship that might exist between the use of the vaccines today and the abortions that took place around forty years ago, from which were derived strains of the isolated virus and the cell lines used to attenuate them. It is clear that the use of the vaccines today was not a determining factor in the decision to abort or in the performance of the abortion that took place so long ago. But it is equally clear that to accept complacently the systems and procedures in the pharmaceutical industry that are connected with abortion, and to buy their products, is a form of approval of—or, at least, acquiescence in—those operations that is incompatible with the commitment to fostering a culture of life. Among other reasons, this is because it will increasingly perpetuate the pharmaceutical and industrial procedures connected with abortion and strengthen social support for them.

For these reasons, in my opinion, it can be stated with certainty that physicians and heads of families are morally obligated to have recourse to alternative vaccines, while exerting all possible pressure on the political authorities and on their own health-

care systems to make available vaccines that are not morally problematic. Likewise, they must use every available means (written correspondence, membership in various associations, the mass media, etc.) to oppose vaccines for which morally acceptable alternatives do not yet exist, lobbying for the development of alternative vaccines and petitioning for rigorous legal control of the pharmaceutical industries.

If, on the other hand, people were complacently—without raising any objections—making use of vaccines that are produced by methods connected with abortion, assuming that they personally do not approve of abortion, they would be involved in (1) a very remote (and hence very attenuated) form of mediate material cooperation with respect to abortion, (2) mediate material cooperation with respect to the commercialization of cells derived from abortions, and (3) immediate material cooperation with respect to the marketing of the vaccines produced with such cells. The cooperation is stronger on the part of authorities and national health-care systems (like those within the European Union) which approve the use of the vaccines. Keep in mind, furthermore, that it is up to conscientious citizens (such as heads of families and physicians) to oppose the ever more widespread attacks against human life and to counteract the culture of death that supports them. The complacent use of these vaccines would also constitute a form of passive material cooperation, to the degrees and with regard to the activities that we have just noted, and it would, of course, be a form of social and cultural cooperation, because it contributes to the creation of a general social consensus approving the activity of the pharmaceutical industries that produce the vaccines by immoral methods.

Does this mean that one must abstain absolutely from the use of the vaccines that we are talking about, refusing vaccination whenever vaccines free of ethical problems are not available? Given that the health of the population is at stake, it seems clear that when vaccines without ethical problems are not yet available, there is an obligation to abstain from using the existing vaccines only if this can be done without endangering the public health, especially the health of children. If they would be exposed to significant risks, then even the morally problematic vaccines can be used for the time being. The reasons are, first, because the duty to avoid passive material cooperation is not urgent (that is, it is not an obligation) if it involves serious inconvenience and, second, because the danger of contributing to the spread of infectious diseases constitutes a proportionately serious reason to allow the forms of active material cooperation to which we referred previously.

In any case, there is still a serious ethical duty to keep fighting and to use every lawful means to oppose the research and commercial activities of the pharmaceutical companies that act without moral scruples. The burden of this important battle must not fall on the health and welfare of the general population or, particularly, on innocent children.

The whole question can be summed up in the following four points:

- 1. There is a serious obligation to use alternative vaccines when they exist, and to object conscientiously to the use of those that are morally problematic.
- 2. With regard to vaccines for which there is no alternative, we should emphasize both the duty to strive for the development of other vaccines and also the

- lawfulness of using the existing vaccines in the meantime, to the extent that that is necessary to avoid a serious health risk to the general population.
- 3. The fact that it is permissible to use these vaccines is not construed as a declaration of the lawfulness of their production, marketing, and use, but rather as a type of material cooperation that is passive and, in a more attenuated and remote sense, active as well, yet morally justified as *extrema ratio*—an extreme form of the duty to provide for the welfare of one's own children and of the persons who come into contact with them, especially pregnant women.
- 4. Such cooperation occurs in the context of a moral constraint on the conscience of parents, who are faced with the dilemma of acting against their conscience or else endangering the health of their own children and the general population. This is plainly an unjust alternative, which must be eliminated as soon as possible.

We would like to point out another aspect of the problem as well, which is actually implied in what has been stated thus far. The preparation and commercialization of vaccines that were developed by the use of biological material resulting from voluntary abortion should be considered in many cases ethically illicit because of the concrete circumstances in which these activities are carried out. It is acknowledged, however, that in the chain of production, distribution, and marketing, the various agents—whose cooperation may be either active or passive—can have different degrees of moral responsibility. Likewise, it seems to be a culpable omission to decide knowingly not to get involved in the research and promotion of alternative and morally non-problematic methods of producing these vaccines.

A Final Observation

In this reflection we have tried to show, with as much clarity as we are capable of, the ethical reasons that support the statements we have made. There is no doubt that some of those who use the vaccines available on the market or furnished by government-supported health-care systems do so with an exclusively therapeutic intention, which is laudable and should be encouraged. The vast majority, however, do not know how these vaccines were developed. In any case, we consider any conduct that would endanger the health of the population or impede appropriate campaigns to combat epidemics of infectious and contagious diseases to be thoroughly irresponsible. We repudiate any interpretation whatsoever along such lines that might be given to what we have written.

The only thing we have tried to demonstrate is that the ethical reservations expressed in several quarters about the use of these vaccines are serious and well founded. We have stated, moreover, and emphasize here again, that someone who is working to promote the culture of life cannot complacently accept the fact that in our society human beings at the embryonic or fetal stage of development are considered and treated as inchoate objects, or "pre-things," devoid of any value whatsoever. Such conduct deserves staunch opposition, and in our confrontations with it no form of acquiescence is morally possible. Biomedical research that respects life is praiseworthy, and everyone must do his part to ensure that progress in medicine and in public health policies is accompanied by an absolute respect for human life and dignity.