Fetal surgery is a controversial procedure in the treatment of fetal abnormalities. A fetus’s ability to regrow organ tissue in the womb is remarkable and, as such, fetal surgery can correct in utero an otherwise fatal disease. In its current stage of development, however, fetal surgery is clinically experimental and regarded as an invasive treatment. Furthermore, the ethical dilemmas surrounding fetal surgery are relatively new and have yet to be investigated thoroughly. Moral debates surrounding this topic question when personhood begins and if a mother should sacrifice her own life for her unborn child. Halakha resolves this conflict by recognizing that the fetus is a part of its mother and is not her equal until birth. When the fetus puts the life of the mother at risk, the halakhic perspective is that until birth, the mother’s life takes precedence over that of her fetus. In this article I explain topics surrounding fetal surgery, an issue that has risen from advances in biotechnology. Fetal surgery has proven effective in specific cases, for example, in the treatment of spina bifida, clinically described as myelomeningocele. In such cases, the consent of both parents, doctor, and rabbi must be practically weighed to determine whether the benefits outweigh the risks.

Fetal surgery includes a range of in utero procedures used to treat birth defects in fetuses. Prenatal operations, enabled by the diagnostic ability of the ultrasound, are both risky and rewarding [1]. Fetal surgery is perceived as a last resort and is still considered new and experimental. Some of the defects that may be treated include severe spina bifida, serious heart defects, and bladder blockages. Although it has been acknowledged that to obtain favorable results some of these abnormalities are better treated in utero, currently available techniques must be improved to achieve better clinical effectiveness.

The underlying idea is that surgical intervention on the fetus is designed to fix pathologies that would be too advanced once the baby is born. Fetal surgery challenges our perspective on when life begins. At what point can full membership to the human community be accorded to a developing fetus? There are three basic opinions to consider regarding the status of an embryo and, later, a fetus. The first opinion is that personhood begins at the moment of fertilization. Another opinion is that the status of a human is acquired in a progressive manner during pregnancy and is completely achieved at birth. Some share the opinion that personhood relies on properties that relate to the functional level of the human brain, specifically cognitive and emotional infrastructure. According to this view, personhood begins when the nervous system has a significantly developed infrastructure. During pregnancy, the fetal brain achieves this during the third trimester. Accordingly, it can be concluded that a fetus should be treated with the appropriate respect that would be designated for a fetus, although not with that expected for a person [3].

Because fetal surgery is presently at a very experimental stage, its risk outweighs any other consideration. The only case in which fetal surgery might currently spark controversy is in a halakhic sense regarding the treatment of spina bifida. The clinical research in treating spina bifida with fetal surgery has produced significant outcomes, making fetal surgery a viable treatment option. Nevertheless, understanding the implications of in utero surgery is a good place to start.

The halakhic perspective, based mostly upon Biblical and Tal-
mudic law, is that the status of a human is only acquired in a progressive manner during fetal development and not at the point of fertilization. Some halakhic authorities consider the fetus a part of the mother's body. Thus, if the fetus endangers the life of the mother and is viewed as a rodef, defined as one who “pursues” the life of another, then it should be sacrificed to save the life of the mother [4]. According to halakha, the status of the fetus is equal to the mother's only at birth.

Another fundamental rule of halakha that pertains heavily to this discussion is that one life must not be sacrificed to save another. There are, however, exceptions to this rule. During delivery, a fetus can be sacrificed to save the life of the mother. It is recorded in the Mishna in Ohaloth (7:6), “If a woman is having difficulty during childbirth, it is permissible to destroy the fetus surgically because her life comes first. If, however, the head of the fetus has already been delivered, then it is forbidden to intercede even though it may cost the life of the mother. The fetus is now an infant with the ability for an independent life. Therefore, we do not sacrifice one life to save another” [5]. Fetal surgery comes into play once we realize that turning to surgical intervention risks the mother's life for the potential to heal the unborn. This raises an additional question: if we know that the procedure has a decent chance at being successful, but is risky, how much risk can we take at the expense of the mother's life? A similar question applies if there is a poor prognosis that the procedure will be successful.

What risk, if any, are we allowed to take to save an unborn fetus? Scientific progress has caused a need to redefine many halakhic understandings and perspectives. It is therefore difficult to answer these questions until these procedures produce greater clinical effectiveness, promising better outcomes for the mother and her potential child [6]. Until then, fetal surgery is a personal matter that must seriously be weighed by the mother, father, rabbi, and doctor.

Further research must be done regarding this matter in terms of how effective these procedures are and how to develop better techniques. There are distinctions between different types of fetal surgery. As such, we must recognize that obstructive uropathy or spina bifida may be abnormalities deemed necessary to correct in the womb, whereas other abnormalities would not be given the same treatment. Permitting less invasive procedures is a stepping stone until progress is made in perfecting fetal surgery as a tool for treatment of fetal abnormalities. Gradually, successful outcomes of in utero surgeries will hopefully increase, and the task of defining the halakhic and ethical implications will become a more pressing necessity. Fetal surgery is an extremely sensitive topic that should not be overlooked. It is crucial to take into consideration the autonomy of the pregnant woman with respect to the interest of her fetus [7]. The mother's selfless act can cause damage to herself, and thus, it is essential for the physician to carefully evaluate the interests of both the fetus and its mother.

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