A microRNA strategy protects endometrial cells from damage during postpartum hemorrhage

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Video Byte

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Abstract

Postpartum hemorrhage is a serious complication after childbirth affecting approximately 6% of women. When hemorrhage occurs, endometrial cells can be damaged and even die, in severe cases causing irreversible damage to the uterus. The key to preventing this process is blocking the accumulation of toxic byproducts like reactive oxygen species and increasing antioxidant levels. A recent study evaluated a new strategy to prevent endometrial cell damage. Using a model of ischemic-reperfusion injury in human endometrial cells, the researchers used the microRNA miR-941 to inhibit a protein called Keap1. This process activated the protein Nrf2, which turned on genes involved in antioxidative processes. Activating Nrf2 protected endometrial cells from damage. Although clinical studies are needed, the results suggest that miR-941 may be a novel strategy for protecting endometrial cells during hemorrhage, keeping women healthier postpartum.