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USING OF AMNIOTIC MEMBRANE IN MEDICINE

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Relevance. Is known that the amnion consists of an important structure supporting the health of the fetus's amniotic sac. The amnion is the thin inner aspect of the fetal membrane, approximately 0.02 to 0.05 mm thick, and comes into direct contact with the amniotic fluid. It is avascular, aneural and alymphatic and receives its nutrients through diffusion. Researches increasingly point to the possibility of the amnion providing new opportunities for health care providers to treat various conditions. The amnion has anti-inflammatory, anti-bacterial, and anti-scarring properties; hence, health care providers may want to use the membrane rather than treat it as waste. Some potential applications may include:• Ophthalmology: Treatment for dry eye, burns and ulcers, or corneal diseases.• Wound healing: It has wound-healing factors to reduce scarring and inflammation as well as to promote tissue healing for ulcers or burns.• Regenerative medicine: Possibly the amnion holds properties that stimulate tissue regeneration.

Amniotic membrane (AM) has been used as a treatment for a variety of ophthalmologic conditions such as corneal surface lesions, retinal detachments, and as an agent for limbal stem cell regeneration. Plastic surgeons and wound specialists employ AM for treatment of acute and chronic wounds, while foot and ankle surgeons have noted accelerated healing of diabetic foot ulcers and other slow-healing wounds with AM use.

Aim: this research aimed how to use amniotic membranes in the medical field. To examine the effect of application of amniotic membrane on the scar of the uterus during the operation cesarean section.

Materials and methods. Studying history cases of the patients with cesarean section and application of amniotic membrane on the scar of the uterus during the operation cesarean section, analysis results, ultrasound examination, statistic methods.

Results and their discussion. We have examined 25 cases of application of amniotic membrane on the scar of the uterus during the operation cesarean section. The indications to the operation cesarean section were the scar on the uterus after previous cesarean section. The average age of the patients was 31 ± 4 years. We have analyzed the sickness of the lower segment of uterus where is the scar in 7 days and 3 month after the operation. The results were that the sickness of the lower segment of uterus where is the scar in 7 days after the operation cesarean section with application of amniotic membrane on the scar was more on 3.5 mm that at the patients with classic operation cesarean section without using of amniotic membranes. At 3 months after operation this result was also on 2mm more that at the patients with classic operation cesarean section without using of amniotic membranes.

Conclusion. Using amniotic membranes helps in regeneration of the scar on uterus after the operation. The amniotic membrane is a promising and ethically non-controversial source of multipotent stem cells (hAESCs). A preliminary study of 25 cases applying the membrane to a cesarean scar showed positive results, with follow-up examinations of the uterine segment at 7 days and 3 months post-operation.