Summary

The AM in early use was portrayed as a potential "miracle" cure or adjunct for almost every surgical procedure of the external adnexea and ocular surface to heal defects and treat scarring. However, as with all new developments, AM had been tried for multiple indications but only now is starting to find its true niche in ophthalmology.

The amniotic membrane is a translucent membrance composed of an inner layer of epithelial cells, planted on a basement membrane that is in turn connected to a thin connective tissue membrane by filamentous strands.

Several mechanisms had been proposed to explain the beneficial effects of amniotic membrane transplants in ocular surgery:

- As regarding promotion of epithelialisation, AM had been widely applied for the treatment of various ocular surface disease.
- As regarding the anti- inflammatory effect. It had been shown that the AM stroma contains growth factors, natural inhibitors of various proteases, and antiangiogenic substances and also potent anti- inflammatory proteins were found.
- There was sound experimental and clinical evidence that AM possesses antiangiogenic and antimicrobial properties.

Several methods of preserving and storing amniotic membrane for ocular and other uses had been described. These include freezed fresh membrane, air drying frozen membrane, lyophilisation and gutaraldelhyde and polytetrafluoroethylene treatment, and irradiation.