

Use of Human Amniotic Membrane for Eye Care in Nigeria

Jiya PY¹, Abah ER², Ameen SK³, Galadima C¹ and Iheanacho UU¹

¹Department of Cornea and Anterior Segment, National Eye Centre, Kaduna

²Department of Ophthalmology, A.B.U Teaching Hospital, Shika-Zaria

³Department of Oculoplasty, National Eye Centre, Kaduna

Corresponding author: Dr Jiya PY, Email: jiyayisa@yahoo.com

Introduction: Davis in 1910 was the first to report the use of fetal membrane as surgical material in skin transplantation¹. Donor is screened serologically for potentially communicable diseases including human immunodeficiency virus, hepatitis B and C viruses and syphilis 6 months before and after processing. Human amniotic membrane (HAM) is widely used in various surgical specialties^{2, 3} There are few reports of its use from Nigeria in the management of Pterygium⁴ and treatment of deep corneal ulcer^{5,6}. The aim of the study is to determine the use of HAM by ophthalmologists in Nigeria, evaluate barrier to its use and possible ways of overcoming such.

Methods: A cross sectional descriptive study using structured self-administered questionnaire to consenting Ophthalmologist who attended 2016 Ophthalmological Society of Nigeria Annual Scientific Conference held in Port Harcourt. Segments of the questionnaire included bio-data, the use and challenges in the use of AM. The data was analyzed using SPSS version 23.0 statistical package.

Results: Total number of respondents were ninety-nine with mean age of 41yrs ±SD6.5 The usage is lower than 40% (Figure 1). This may imply that in our centres & practice, the technique may be new or not available. The major indications for use of AM were the trio of Symblepharon, Corneal Ulcer and/or perforations and Pterygium (Figure 2)

Discussion: The few reports on the use of HAM from Nigeria speaks volume – awareness, skills, availability, cost⁵ The indications for AM graft in ocular surgery include: Conjunctival surface reconstruction, Pterygium surgery, Chemical burns, Cicatrizing conjunctivitis, Ocular surface squamous neoplasia (OSSN), Leaking blebs, Filtering surgery, Symblepharon release, Fornix formation and a host of others. The major barriers to the use of AM were Availability, Cost and Limited skill.

Conclusion: Majority of ophthalmologist in Nigeria are yet to use HAM. Availability, cost and limited

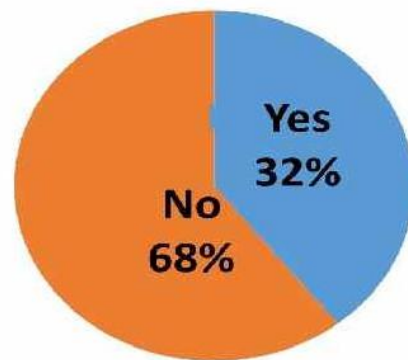


Fig. 1: Usage of amniotic membrane

skills remains a major challenge. Local production of HAM will reduce cost and increase availability.

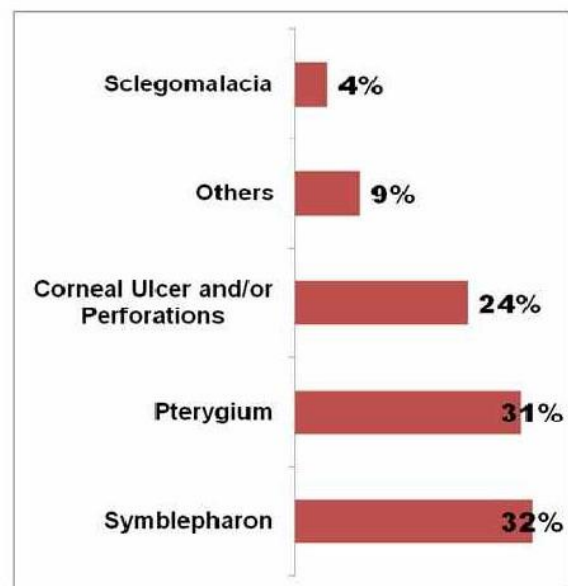


Fig. 2: Usage of amniotic membrane by specific diseases

References

1. Davis JW. Skin transplantation with a review of 550 cases at the Johns Hopkins Hospital. *Johns Hopkins Med J* 1910; 15: 307.
2. Rahman I, Said DG, Maharajan VS, Dua HS. Amniotic membrane in ophthalmology: indications and limitations. *Eye* (2009) 23, 1954-1961.
3. Dua HS, Gomes JA, King AJ, Maharajan VS. The amniotic membrane in ophthalmology. *Surv Ophthalmol* 2004; 49: 51-77.
4. Okoye O, Oqueqo NC, Chuka-Okosa CM, Chanta M. Short term results of pterygium surgery with adjunctive amniotic membrane graft. *Niger J Clin Pract* 2013 Jul-Sep; 16(3): 356-9.
5. Waziri-Erameh JA, Omoti AE, Uduose AU. Fresh non-preserved human amniotic membrane transplantation in the treatment of deep corneal ulcers in a developing country (Nigeria): Case report on initial experience. *Niger J Clin Pract* 2010; 13:94-97.
6. Mohammed I. Treatment of pterygium. *Ann Afr Med* 2011; 10:197-203