Outcomes of shunt tube coverage with glycerol preserved cornea versus pericardium.

Pericardium is a biomaterial widely used for covering the outflow tubes of glaucoma drainage devices. Recently, glycerol preserved cornea has been introduced as an alternative that offers durability and improved cosmesis because of its clarity. We retrospectively reviewed 262 patients in the University of Alabama Birmingham Glaucoma Service who underwent shunt procedures using either cornea tissue or pericardium to cover the tube. The primary outcome measure was the number of erosions of the covering material. Nine out of 101 (8.9%) patients in the pericardium covered group experienced an erosion compared with 3 out of 161 (1.9%) in the cornea covered group. A significant difference was reached with P=0.0125. Median follow-up was 440 days for the cornea group and 331 days for the pericardium group. The type of glaucoma (primary open-angle glaucoma vs. secondary glaucoma) was not associated with the risk of erosion (odds ratio, 0.501; 95% confidence interval, 0.204-1.234). The median time to exposure was 252 days in the pericardium group and 440 days in the cornea group (P=0.0017).