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DNA IS PRESENT IN CADAVER ALLOGRAFTS

Aims of Study. Human cadaver allografts are gaining popularity for use in pubovaginal slings and vaginal reconstruction. The purpose of this study was to determine the presence of DNA and quantitate the concentration of DNA in two commercially available cadaver allografts: freeze-dried-gamma-irradiated cadaver fascia lata and decellularized cadaver dermis

Methods. Sixteen samples from two commercial sources of human allograft were evaluated: freeze-dried-gamma-irradiated cadaver fascia lata (8 samples), decellularized cadaver dermis (8 samples). Fresh human rectus fascia served as a positive control, sterile saline served as a negative control. All samples underwent a standard extraction technique (proteinase K/ SDS/ phenol) to isolate DNA. Polymerase chain reaction was performed to amplify the retrieved DNA material. Spectrophotometric evaluation was used to quantify DNA concentrations.

Results. Of the group, 14/16 (87.5%) samples tested from two commercial sources of human allograft fascia contained DNA. Mean DNA concentrations were $258.3 \pm 80.1 \mu\text{g/g}$ tissue for cadaver fascia lata group vs $272.8 \pm 168.8 \mu\text{g/g}$ tissue for cadaver dermis group. PCR amplified DNA segments of 2000 bp from both cadaver fascia lata (1/8 samples) and cadaver dermis group (1/8 samples).

Conclusions. Both freeze-dried-gamma-irradiated cadaver fascia lata and decellularized cadaver dermis contained DNA. Whether this genetic material is associated with infectious risk remains unknown. Unusual diseases such as Creutzfeldt-Jacob disease may pose additional risk with cadaver allografts.