stimlabs®

Case Example

Anterior Lumbar Two-Level Fusion with Placement of A Translucent Dehydrated Complete Human Placental Membrane Allograft

Access & Spine | Dr. Julianne Santarosa | Dallas, TX

Technology Platform

While placental membranes have long been used in medicine, the commercialized processing techniques in the 1990's and early 2000's stripped many of the key structural and molecular components from the native tissue.[1] StimLabs' dehydrated complete human placental membrane (dCHPM) allograft is the first intact, complete placental membrane allograft brought to the market. Translucent dCHPM allografts are processed using Clearify™, StimLabs' breakthrough approach to processing birth tissue without ever delaminating the membrane. This patented technology effectively cleans the full-thickness allograft and preserves native signaling and structural components, resulting in a thicker allograft than dual-layer competitors.[2] Translucent dCHPM allografts are intended for use as a wound covering or barrier membrane.

Clinical History

A 52-year-old, female smoker presented with a three-year history of lower back pain and a current pain score of 8 out of 10. The patient reported that activity and extension exacerbate the pain. Previous treatment included conservative care with pain management physicians, multiple steroid injections, and a transforaminal lumbar interbody fusion at L5-S1.

Procedure

A lower midline incision was made through the subcutaneous tissue down to the fascia. The fascia was incised and the preperitoneal space was entered, taking care not to injure the epigastric vessels. The endoabdominal fascia was sharply avulsed, leading to access to the retroperitoneal space. The peritoneal sac and left ureter were gently immobilized medially to the right. The ureter was then mobilized from Gerota's fascia down to the pubic tubercle and off the psoas muscle across the left iliac vasculature using both blunt and sharp dissection given the degree of retroperitoneal fibrosis. A retractor was placed with angle blades off the ureter, and the L3-L4 and L4-L5 disc spaces were cleared using vein retractors. The discs were removed, and interbody devices were installed (Figure 1a). Once satisfaction of the construct was determined visually and fluoroscopically, absorbable hemostatic agents were placed over the disc sites. One 4 x 6 cm translucent dCHPM allograft was placed to cover the interbody devices and serve as a barrier membrane (Figure 1b and c). The abdominal contents were then moved back into place. The fascia was then closed with two running polydioxanone sutures. Subcutaneous tissue was then re-approximated with a 2-0 Vicryl® suture. Skin was closed with 4-0 Monocryl® in subcuticular fashion. Overall, the patient tolerated the procedure well.

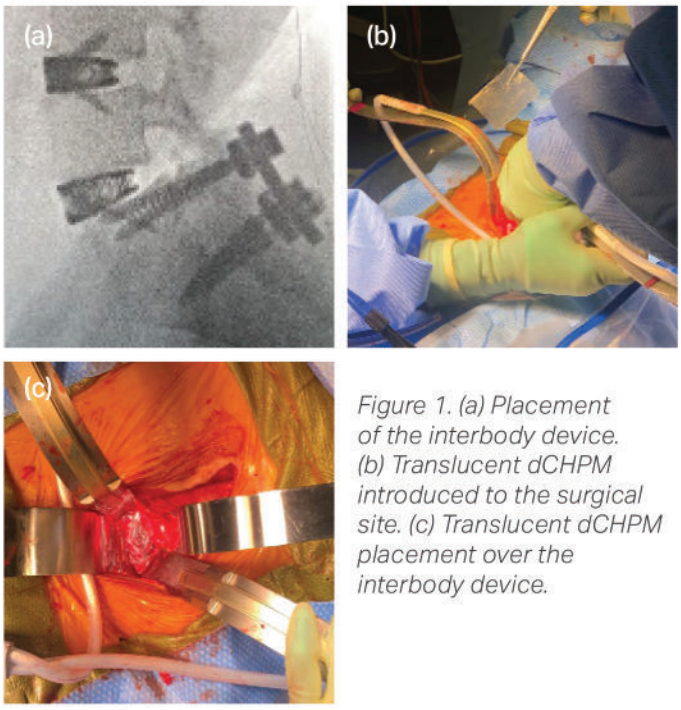

Figure 1. (a) Placement of the interbody device. (b) Translucent dCHPM introduced to the surgical site. (c) Translucent dCHPM placement over the interbody device.

Translucent dCHPM Experience

When manipulating over the surgical site, the allograft did not tear. The physician reported excellent handling characteristics of translucent dCHPM.

1. Roy, A., & Griffiths, S. (2020). Intermediate layer contribution in placental membrane allografts. Journal of Tissue Engineering and Regenerative Medicine, 14(8), 1126–1135. https://doi.org/10.1002/term.3086 2. Data on file.