Ovine collagen extracellular matrix (CECM) dressing assisted nonsurgical closure of the acute wound, following Mohs surgical excision for cancer.

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Introduction:
CECM is an advanced wound care dressing comprised of non-reconstituted collagen derived from ovine extracellular matrix and it retains the innate biological structure and function of the native extracellular matrix. In vitro studies have shown that CECM exhibits broad spectrum activity against MMPs. CECM may be used for a variety of wound types, one of which is post-surgical wounds. Mohs surgical excision is characterized by the removal of skin cancer with immediate topographic pathologic analysis to ensure all tumor cells are removed. If not, further excision is performed until that same setting, and repeated until complete tumor excision is confirmed. Mohs surgical excision is performed by dermatology and recommended for skin cancers located in cosmetically sensitive areas of the face. The resulting defects are often large, deep, and may expose underlying cartilage. Closure of these defects can be challenging and often requires the addition of expertise of a plastic surgeon. General principles of closure are to replace the tissue with like tissue. This includes local flaps which involve local tissue rearrangement that will require a surgical procedure with anesthesia. Additional incisions are made to create a donor defect to transpose onto the original defect. The donor site is then closed primarily. The result is additional incisions and scars outside of the margin of the original. These procedures must be timely and coordinated with the additional surgical team and often performed the following day. Other options for closure may include primary closure, skin graft or healing secondarily. Primary closure often creates distortion of anatomic landmarks, and skin grafting while it may allow for timely healing, once healed the skin graft is noticeably different than the surrounding tissue. Healing by secondary intention is an option frequently chosen upon because of the inherent risk of secondary contraction that may distort anatomic landmarks such as the nares, eyes, and or around the wound. However, a non-surgical option is the preferred choice for many patients.

Conclusion:
In summary, this series of cases CECM provided a non-surgical alternative to surgical flap procedures following Mohs surgical excision. Early experience with CECM dressings to assist with closure for the acute wound following Mohs surgical excision on the face suggests a timely, satisfactory cosmetic result. While further research is needed, early experience resulted in no significant secondary contracture or atrophic distortion. This differs from what we might expect from secondary healing alone, and suggest further cellular reparation may play a role.

Case Study 1:
Patient: 40-year-old female post Mohs excision left forehead.
Past medical history:
- None
Wound treatment:
- CECM dressing applied to wound covered with non-adherent dressing.

Case Study 2:
Patient: 70-year-old female status post Mohs excision basal cell carcinoma upper lip.
Past medical history:
- Previous skin cancer excisions some location.
Wound treatment:
- CECM dressing applied to wound covered with non-adherent dressing.

Case Study 3:
Patient: 65-year-old female post Mohs excision basal cell carcinoma on nasal ala.
Past medical history:
- Previous basal cell carcinoma.
Wound treatment:
- CECM dressing applied to wound covered with non-adherent dressing.

Case Study 4:
Patient: 44-year-old male post Mohs excision basal cell carcinoma on the left nasolabial fold.
Past medical history:
- None
Wound treatment:
- Presented with an acute, complex wound with full thickness loss, left tip

Case Study 5:
Patient: 66-year-old male with basal cell carcinoma on 2 areas of the nose, nasal sidewall and nasal ala.
Past medical history:
- None
Wound treatment:
- Post Mohs surgery resulted in full thickness loss to nasal sidewall and nasal ala.
- Surgery performed to close the nasal ala defect.
- Nasal ala wound left to heal by secondary intention using CECM dressing.
- CECM dressing applied to wound covered with non-adherent dressing.

Method/Results:
The use of CECM to assist with closure following Mohs excision was used in 5 patients (4-5). All excisions were performed for basal cell carcinomas on the face (n = 3), temporal (n = 1), and left tip (n = 1). All patients achieved satisfactory cosmetic closure by 21 days. No infections. No additional surgeries were required. No secondary contracture with atrophic distortion occurred. All patients were satisfied with cosmesis of cosmetic result, time to heal, and care and treatment required.

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