Summary and Conclusion

Dermatologic wounds can heal by secondary intention, or they can be closed by a variety of methods. Although the skill and technique of the surgeon are important, so is the choice of wound closure materials. The purpose of these materials is to maintain wound closure until a wound is strong enough to withstand daily tensile forces and to enhance wound healing when the wound is most vulnerable.

Several methods of wound closure are available to be utilized from sutures to laser assisted wound closure passing with staples, strips, fibrin sealant, and tissue glue.

Sutures are the most widely used method for wound closure so understanding the various characteristics of available suture materials is important to make an educated selection. No one suture possesses all desirable characteristics. The optimal suture should be easy to handle and have high tensile strength and knot security. Any tissue reaction should be minimal, and the material should resist infection and have good elasticity and plasticity to accommodate wound swelling. A low cost is preferred. Although some of the newer materials available have many of these properties, no one material is ideal and comparison must be made.

Sutures can be divided into natural or synthetic, absorbable and non-absorbable ,and either monofilament or multifilament. although the natural sutures have been used largely for most surgical situations, the recently synthetic sutures may be desirable for, among other reasons, reducing the chronic tissue reactivity to foreign organic material.

The decision of choosing between absorbable and non absorbable is

whether the need for sutures is temporary or permanent mechanical support.

Multifilament can be twisted or braided. Monofilaments are advantageous because multiple strands of the multifilament provide environment for infection, multifilament sutures particularly in their braided form, tend to be more vulnerable to shearing forces and thus more susceptible to breakage. Monofilaments are liable to be weakened by grip of the forceps and other instruments.

Other methods of wound closure are not so widely used as suture either because their cost or their limited availability.

Synthetic implants are an invaluable tool for the facial plastic surgeon. Fixation of fractures, soft tissue and bony reconstruction, and cosmetic augmentation may all be addressed with a wide variety of synthetic implants.

Metals was the first materials to be used for implant fabrication, gold and silver have had a place in soft tissue augmentation since the sixteenth century. Paraffin and ivory gained popularity in the early 1900s; however, tissue reaction, granulomas, lack of immobilization, and technical difficulties eventually dismissed their use

With industrial advance plastic polymers were used for soft tissue augmentation. Initially, methylmethacrylate, polypropylene, and polyethylene were used extensively, but the lack of malleability and the need for prefabrication led to the development of softer alloplasts. In the 1950s, silicone, Dacron, and nylon gained popularity because of their biocompatibility, ease of fabrication, and properties that make it possible

to individualize an implant to the patient's requirements.

All these materials are used to produce a large variety of Implantable devices utilized to restore body shape or function such as Mesh implant, Tissue expander, Breast implant, penile implant, and Dermal fillers.