

# **Autologous fibrin sealant (FS) in plastic surgery - Review.**

Authors: Samonikov T.J., Marcikic G., Georgiev K., Trojic T., Samonikova G., Dobrosavjevic V.

Publication Date: 2009

## **Abstract:**

Background: Fibrin sealant also known as fibrin glue (FG) is used in many surgical fields because of its' functional properties and unique physical advantages. The fields of surgical application of FS adhesives are rapidly developing. FS is prepared from the patient's own blood. Autologous use has the advantage of avoiding the risk of transfusion transmitted disease (TTD). Aim: By using dermolipectomy and different techniques of hernioplasty we want to underline that the combining of these two techniques and the use of fibrin sealant at the same patient is a benefit. Material and methods: In the period from October 2007 to October 2008, 11 female patients, at the age of 32 to 48 years, were treated. All of them were submitted to infraumbilical dermolipectomy. Eight of them, having incisional hernia after "sectio cesarea", were treated with implantation of polypropylene mesh-graft, and the remaining three of them, having incisional hernia after dehiscence of local peritonitis as a consequence of appendectomy, were treated with local hernioplasty. Nine of the patients were submitted to a long drain therapy in order to eliminate the lymphatic fluid. These drains produce additional reactive fluid and prolong the initial healing time. In the case of four patients we applied autologous FS and the drains were removed in the fourth post opp day with no seroma sequealae and preventing swelling. The autologous pre-donation red blood cells were also administrated the next post opp day. Conclusion: These surgical techniques are well known procedures, but the use of pre-donatory autologous blood and FS which is physiologically compatible with human tissues, does not induce necrosis or other reactions and make this method safe. Autologous FS has the advantage of avoiding the risk of TTD and makes the operation easier, safer, cheaper and therefore more acceptable for the patients and the surgery teams. Trends in

minimal invasive surgery also contribute to the increasing use of this biomaterial.