

# **Fibrin sealant for the prevention of axillary seroma formation after axillary lymph node dissection. A prospective randomized study.**

Authors: Sanchez-Mendez J.I., Lopez-Rodriguez M.J., Sanchez-Martinez C., Martinez-Garcia M.T.,  
Iniesta Donate M.D., Ordas Santotomas J.

Publication Date: 2009

## **Abstract:**

**Background:** The most frequent postoperative complication after axillary lymph node dissection is the axillary seroma (AS) formation. Currently accepted practice includes insertion of one or more drainage system for fluid evacuation. Several methods have been proposed to decrease AS formation, such as closed suction catheters, shoulder immobilisation, tetracycline sclerotherapy, talc podrage and closure of dead space; however no of them have reduced the incidence of AS. Seromas are associated with wound infection, wound dehiscence and skin flap necrosis, which prolong the recovery and can extend patients stay in Hospital. The aim of this prospective randomized controlled trial was to evaluate the efficacy of fibrin sealant (FS) on the prevention of AS. **Material and Methods:** Sixty-two patients undergoing axillary lymph node dissection were randomized to treatment with drainage alone (arm A, n=49), drainage plus FS (arm B, n=12), or FS alone (arm C, n=53). Arm B was cancelled after primary results. Efficacy was evaluated in terms of length of hospital stay, volumen of fluid drainage and rate of wound related complications (seroma, hematoma, infection, dehiscence) in each arm. **Results:** No significative differences are detected neither type of surgery, nor histological characteristics. (Table presented) The mean result is a difference of almost minus 3 days in postoperative stay in the FS group. (Figure presented) **Conclusions:** 1- Application of fibrin sealant reduces the amount of serosanguinous drainage and the length of postoperative stay in patients who have undergone axillary lymph node dissection. 2- Fibrin sealant allows to avoid the insertion of an axillary drainage system 3- It is very important the

correct preparation and application of the fibrin sealant and it should be performed by a qualified surgeon. 4- Future clinical trials to assess the role of fibrin sealant seroma are warranted.