Efficacy of fibrin sealant for drainage reduction in total thyroidectomy with bilateral central neck dissection.

Authors: Kim T.W., Choi S.Y., Jang M.-S., Lee G.-G., Nam M.-E., Son Y.-I., Chung M.K.

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Abstract:

Objective. To investigate the efficacy of fibrin sealant (FS) for reducing postoperative drainage in patients who underwent total thyroidectomy (TT) with bilateral central neck dissection (CND) for papillary thyroid cancer. Study Design. Prospective randomized trial. Setting. Tertiary care institution. Subjects and Methods. Seventy-eight patients with papillary thyroid cancer were enrolled and randomized to either the FS application group (FS+, 38 patients) or no FS application group (FS-, 40 patients). In both groups, postoperative drainage amounts were measured by a negative suction system until the criterion of drain removal was met. Drainage amounts as well as the time to drain removal, postoperative complications, and chemical profile assay of drain fluids between the 2 groups were performed. Results. Drainage amounts at the initial 24 hours as well as total amounts of the FS+ group tended to be lower than those of the FS- group; however, they were not statistically different (at initial 24 hours, 64.3 +/- 17.5 mL vs 73.0 +/- 18.0 mL, P = .06; total amounts, 93.5 +/- 30.7 mL vs 105.7 +/- 31.2 mL, P = .05). The FS application did not shorten the time to drain removal even when different criteria for drain removal were applied (criteria of <20 mL/d or <30 mL/d). When chemistry profiles of collected drain fluids were analyzed in patient subgroups, the level of triglycerides in the FS+ group was significantly lower than in the FS- group. Conclusion. Fibrin sealant has no additional advantage in terms of drainage reduction and early discharge despite the additional medical cost.