

Effect of Tranexamic Acid In Bleeding Control In Liposuction

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Background: Liposuction¹ is a surgical technique for the treatment of lipodystrophy consisting in the removal of adipose tissue via a cannula connected to a vacuum system introduced into the patient through small holes in the skin.

The Brazilian Society of Plastic Surgery provides that the maximum limit of fat to be aspirated with patient safety must not exceed 7% of body weight. The factor that most influences this limitation is that with the fat loss occurs a considerable amount of blood loss² as a result of damage to the blood vessels present in the subcutaneous.

The creation of methods to reduce blood loss during surgery and in the postoperative can make this method even more secure.

Methods and Materials: Clinical, prospective, double-blind, non-randomized study, in order to test the efficacy of tranexamic acid in bleeding control^{3,4,5} in per and postoperative liposuction.

The series presented was 20 patients undergoing liposuction, divided into two groups: Group 1 (n = 10) received tranexamic acid at 10 mg/kg, 30 minutes before and at the end of surgery; Group 2 (n = 10), control, saline was infused (Table 1).

The results were analyzed by measuring hematocrit preoperatively, on the 7th day after surgery and the aspirated fluid in liposuction (Table 2).

	Group 1 - study (N = 10)	Group 2 - control (N = 10)
Aspirated volume (ml)	4280 (+ 1.434)	3.715 (+ 1.693)
Percentage of body weight aspirated (%)	5.8 (+ 1.8)	5.4 (+ 1.7)
Blood volume in the aspirate (ml)	37.7 (+ 15.5)	59.9 (+ 25.1)
Volume of blood per liter of aspirate (ml/l)	8.8 (+ 2.0)	20.1 (+ 7.6)

Table 1: Results of liposuction

	Group 1 - study (N = 10)	Group 2 - control (N = 10)
Initial HTO (g/dl)	38,7 (+ 4,4)	39.3 (+ 2.3)
Postoperative HTO (g/dl)	32,9 (+ 1,2)	31.0 (+ 2.8)
HTO reduction (g/dl)	6,4 (+ 2,6)	7.9 (+ 2.2)
HTO reduction per aspirated liter (g/dl/l)	1.3 (+ 0.7)	2.7 (+ 1.1)
Aspirated volume to reduce 1 % in HTO (ml)	812 (+ 432)	363 (+ 210)

Table 2: Hematocrit variation in postoperative; HTO, hematocrit.

Results: Patients who used tranexamic acid showed 37% less bleeding during surgery, a result even more significant when comparing the volume of blood aspirated liter, which was 43.8% lower than in the control group.

Conclusions: Tranexamic acid proved to be very effective in controlling blood loss in liposuction, reducing by almost half blood loss during surgery and the change in hematocrit in the postoperative period, increasing safety when performing this surgical procedure.

The author concluded that the use of tranexamic acid is effective in controlling bleeding in liposuction surgery.

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