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Biomatrix sclerofoam: A coming option for leg vein treatment

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Background: Common sclerofoams (Cabrera type, including VariThena/BTG) are inferior to thermo-occlusion regarding primary and long-term results. A novel viscous microfoam using a biomatrix based on denatured autologous blood proteins now was evaluated in various targets.

Methods: In a prospective study, 85 patients (56 f, 29 m, 31 – 78 J.) were selected in bail-out situations to receive biomatrix sclerofoam (BSF) instead of standards. Targets (n = 230) were: 1. GSV including SFJ, 6 – 14 mm Ø, mean: 8.7 mm, n = 65; 2. SSV including SPJ, 6 – 11 mm Ø, mean: 7.2, n = 20; 3. Perforators, 4 – 11 mm Ø, mean: 6.9 mm, n = 43), 4. tributaries, 5 – 13 mm Ø, n = 64; 5. Recurrent varicosities 5 – 15 mm Ø, n = 38. The foam, prepared from 40% Aethoxysklerol 2%, 20% biomatrix and 40% gas, was deployed via catheter (PhleboCath, 2.0 – 2.3 mm Ø, or Microcath 1.6 mm Ø). Follow-up including ultrasound was performed after 2 weeks, 2 months and one year.

Results: Primary total occlusion of all segments intended to treat was obtained in 213/220 cases (96.9%). 7 targets (3.2%) required a second foam application (GSV: n = 1, tributaries: n = 2, perforantors n = 2, recurrencies n = 2). There were no complications, in particular no DVT. After one year, partial reperfusion was observed: SFJ 3/65 cases (4.3%), GSV: 4/65 (6.2%), SSV: 1/20 (5.0%), tributaries: 6/64 (9.4%), perforantors: 4/43 (9.3%), in recurrent varicosities: 4/38 (10.5%).

Conclusions: The novel foam is safe and effective for all major leg vein targets to occlude. Direct comparison to standards will follow.