Addition of vasoactive drug therapy improved the effectiveness of injection sclerosis or band ligation for acute variceal bleeding but failed to produce a significant reduction in mortality.

**Background:** While endoscopic therapy involving either injection sclerosis or band ligation is considered the intervention of first choice for acute variceal bleeding, pharmacological agents have also been shown to be highly effective in the control of bleeding. Even so, acute variceal bleeding continues to carry a substantial mortality making the combination of endoscopic therapy and vasoactive drug therapy a logical approach.

**Question:** Does the addition of vasoactive drug therapy improve the effectiveness of injection sclerosis or band ligation for acute variceal bleeding?

**Methods:** Systematic review and meta-analysis of randomised control trials published between 1994 and 2001, identified from a comprehensive search, including electronic databases, the Cochrane registry of trials, and abstracts from major meetings.

**Results:** Eight trials (three only published as abstracts) involving 939 patients (61% men) fulfilled the selection criteria. Alcoholic cirrhosis was present in 66%, and 39% of patients were Child class C. Combined treatment improved initial control of bleeding (relative risk (RR) 1.12; 95% confidence interval 1.02–1.23) and also improved haemostasis assessed at five days (RR 1.28; 1.8–1.39), with the numbers of patients needed to treat to avoid one patient with further or repeated bleeding being 8 and 5, respectively. These benefits of combined treatment remained significant when trials used drugs other than octreotide or that included a low proportion of patients with alcohol induced cirrhosis (<40%) or high risk cirrhotic patients (<35%) were excluded. Despite these improvements, mortality was not significantly decreased by combined therapy (RR 0.73; 0.45–1.18). Severe adverse events were similar in both groups.

**Conclusion:** In patients with acute variceal bleeding, a vasoactive drug therapy improved both initial and five day control of bleeding but failed to produce a significant reduction in mortality.
ligation alone with ligation plus vasoactive drug therapy, with inhospital mortality as the primary end point, are needed to determine the exact place of these agents as adjuvants to endoscopic therapy.

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All that glitters is not gold

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