

- fistula syndrome: clinicopathologic features, diagnosis, and therapy. *Gastroenterology*, 1997, 113:1390-1401.
7. Sahagun G, Benner KG, Saxon R, et al. Outcome of 100 patients after transjugular intrahepatic portosystemic shunt for variceal hemorrhage. *Am J Gastroenterol*, 1997, 92:1444-1452.
 8. cherkasov VA, Prolubovskii VI, Shertsinger AD, et al. Endovascular embolization of the gastric veins in portal hypertension complicated by esophagogastric hemorrhages. *Khirurgiga (mosk)*, 1998, 6:77-80.
 9. Marin ML. Endovascular surgery: threat of opportunity. *Semin Vasc Surg*, 1997, 10:85-92.
 10. Rose SC, Moodre EE. Emergency trauma angiography: accuracy, safety, and pitfall. *AJR*, 1987, 148, 1243-1248.
 11. Becher CD, Mentha G, Schmidlin F, et al. Blunt abdominal trauma in adult: role of CT in the diagnosis and management of visceral injuries. *Eur Radiol*, 1998, 8:553-562 and 772-780.
 12. Ohki T, Weith FJ, Marin ML, et al. Endovascular approaches for traumatic arterial lesions. *Semin Vasc Surg*, 1997, 10:272-285.
 13. Hagiwara A, Yukioka T, Ohta S, et al. Nonsurgical management of patient with blunt hepatic injury: efficacy of transcatheter arterial embolization. *AJR*, 1997, 169: 1151-1156.
 14. Soltes GD, Rainwater JR, Middlebrook MR, et al. Interventional uroradiology world. *J Urol*, 1998, 161:52-61.
 15. Rogers FB, Strindberg G, Shaeford SR, et al. Five-year follow up of prophylactic vena cave filters in high risk trauma patients. *Arch Surg*, 1998, 133:406-411.
 16. Shahrudin MD, Noori SM. Bileoma and biliary fistula associated with hepatorrhaphy for liver injury. *Hepatogastroenterology*, 1997, 44:519-521.
 17. Maskov J, Krajina A. Interventional procedures in patients after vascular reconstructive surgery of the lower extremities. *Rozhl Chir*, 1998, 77:123-128.
 18. Fava M, Loyola S. Mechanical fragmentation and pharmacologic thrombolysis in massive pulmonary embolism. *J Vasc Interv Radiol*, 1997, 8:261-266.
 19. Oya N; Otake T, Nishimatu T, et al. MR spectroscopy in acute brain infarction: differentiation of infarcted and non-infarcted areas. *Nippon Igaku Hoshasen Gakkai Zasshi*, 1997, 57:276-278.
 20. Wholey MH, Maynar MA, Wholey MH, et al. Comparison of thrombolytic therapy of lower-extremity acute, subacute, and chronic arterial occlusions. *Cathet Cardiovasc Diagn*, 1998, 44: 159-169.
 21. Spearman MP, Jungreis CA, Wehner JJ, et al. Endovascular thrombolysis in deep cerebral venous thrombosis. *AJNR Am J Neuroradiol*, 1997, 18:502-526.
 22. Windecker S, Meyer BJ, Bonzel T, et al. Interventional cardiology in Europe 1994. Working Group Coronary Circulation of the European Society of Cardiology. *Eur Heart J*, 1998, 19:40-54.
 23. Elsner M, Zeiher AM. Perforation and rupture of coronary arteries. *Herz*, 1998, 23:311-318.
 24. Flores P, Huete I. Thrombolysis in the management of lower limb peripheral arterial occlusion-a consensus document. Working Party on Thrombolysis in the Management of Limb Ischemia. *Am J Cardiol*, 1998, 81:207-218.
 25. van Sonnenberg E, Wittich GR, Chon KS, et al. Percutaneous radiologic drainage of pancreatic abscesses. *AJR*, 1997, 168:979-984.
 26. Slonim SM, Razavi M, Kee S, et al. Transbronchial Palmaz stent placement for tracheobronchial stenosis. *J Vasc Interv Radiol*, 1998, 9:153-160.
 27. Choo IW, Do YS, Suh SW, et al. Malignant colorectal obstruction: treatment with a flexible covered stent. *Radiology*, 1998, 206:415-421.
 28. Mainar A, Gregorio D, Ariza MA, et al. Acute colorectal obstruction: treatment with self-expandable metallic stents before scheduled surgery-results of a multicenter study. *Radiology*, 1999, 210:65-69.

病例报告 ·

支气管动脉 DSA 及栓塞术成功治疗支气管扩张咯血三例

宋恬 孙荣跃 乔文龙

支气管扩张 3 例,年龄 48~72 岁,男 1 例,女 2 例,咯血史 20~48 年,咯血量 50~300 毫升/次,均由胸片和 CT 证实为支气管扩张症。经内科治疗后反复咯血不止。

本组患者均在咯血期间施行支气管动脉 DSA 及支气管动脉栓塞术。3 例均从右股动脉穿刺插管,用 Cobra 导管寻找到支气管动脉,选 300mg/ml 碘必乐作造影剂,以 2ml/秒,2F/秒作 DSA。明确出血部位以后,选明胶海绵作栓塞物,

做成明胶海绵颗粒(1mm ×1mm ×1mm)及明胶海绵条(2mm ×2mm ×10mm),先后用 5ml 针筒从导管缓慢注入支气管动脉内,直至造影证实出血部位血管不再显示。

3 例患者施行支气管动脉造影及栓塞术后 24 小时内,咯血均停止,仅有痰中带血丝现象。3 例均出现术后低热,予抗炎治疗后消失。其中 1 例术后次日出现右足底针刺样疼痛,4 日后消失。随访 6 个月后,均未出现咯血复发,生活及工作情况良好。

作者单位:200040 上海 华东医院放射科