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Title: Bronchial artery embolization in the management of hemoptysis: A multicenter study in 218 cases

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Body: AIM: To evaluate the short and long term results in control of massive and chronic recurrent hemoptysis in 218 patients with special microspheres (embospheres). MATERIAL AND METHODS: Fifty six patients with massive and 162 with chronic recurrent hemoptysis were included. Microcatheteres were used to achieve distal embolization with precisely calibrated microspheres of hydrogel core and polyzene cover], sized 300-400µ m or above 500µ m if antegrated shunting were seen. The mechanical properties of these spheric particles prevent aggregation and clogging allowing more distal embolization and accurate choice of the diameters of vessels to be occluded. RESULTS: The most common cause of hemoptysis was bronchiectasis in 126 (58%) of patients, of whom 27 (12,4%) had cystic fibrosis, followed by lung cancer in 27 (12,4%), tuberculous cavities in 14 (6,4%), mycetomas in 8 (3,6%), fibrothorax in 6 (2,8%), bullectomy adhesion in 5 (2,3%), Takayasu arteritis in 1 (0,5%), arteriovenous malformation in 1 (0,5%) and cryptogenic in 19 (8,7%) cases. Non bronchial collaterals were embolized in 36 (16,6%). Successful control of the hemoptysis was seen in 89% after the 1st session and in 94% after the 2d. Mean follow up period was 3.7 years. In cystic fibrosis bronchiectasis the overall recurrence was 36%, with a mean time to reccure 26.2 months, whereas without cystic fibrosis recurrence was 11%, in a mean time of 3.3 years. Major hemoptysis free rates were 92.2%, 83% and 69.6% at 1, 3 and 5 years respectively. Fever was seen in 3.6% and transient chest pain in 12.4% of cases. CONCLUSION: The management of massive and chronic recurrent hemoptysis is safe and successful using precisely calibrated embospheres.