Atrial fibrillation was diagnosed in a 61-year-old man with a history of hypertension and type 2 diabetes and essential thrombocytosis. Warfarin treatment was started to enable cardioversion, but had to be stopped after 1 month because of life-threatening pulmonary bleeding. After recovery, another trial with warfarin caused also profuse haemoptysis. No predisposing pulmonary pathology was found and the condition could be stabilized with steroids and antibiotics. Left atrial appendage was found to be filled with soft thrombus and heavy spontaneous contrast and a short enoxaparin treatment could not totally solve the thrombus (Panels A and B). Visible thrombus is regarded as a contraindication for a device closure of left atrial appendage, but in this case the thick thrombus was deep seating and closure was considered a reasonable option when using Amplatzer Cardiac Plug. Sizing of the device was based on transoesophageal imaging (Panels A and B) and only a gentle injection of contrast medium was given near the appendage orifice to localize the appendage neck (arrows) and ‘paint’ the thrombus with contrast without dislodging the thrombus (Panel C). Amplatzer Cardiac Plug device could be cautiously delivered in the appendage (Panel D) to cover the ‘painted’ thrombus. Recovery was uneventful and patient was discharged with a low dose of enoxaparin for 1 month plus aspirin for 3 months. There were no embolic or bleeding events during the 1-year follow-up. Successful cardioversion was performed 20 weeks later because of severe arrhythmic symptoms under 4 weeks of enoxaparin, and repeated 3 months later without anticoagulation when the arrhythmia was acute.