Late Post Pancreatectomy Haemorrhage (PPH). Risk Factors and Modern Management

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ABSTRACT
Context Current management of late post pancreatectomy haemorrhage (PPH) in a university hospital. Objective Haemorrhage after pancreaticoduodenectomy (PD) is a serious complication. We report on risk factors and outcome following management by radiological intervention. Setting Tertiary care centre in Scotland. Subjects Sixty seven consecutive patients who underwent pancreaticoduodenectomy. Methods All PD over a 3 year period were reviewed. International Study Group on Pancreatic Surgery (ISGPS) definition of PPH was used. Endpoints were incidence of haemorrhage, pancreaticojejunal anastomosis leak, MRSA infection and mortality. Univariate and multivariate analysis were performed. Results Seven patients (10.4%) developed PPH out of 67 PD. Median age was 71. All PPH were late onset (median 23 days), extraluminal and ISGPS grade C. PPH arose from: hepatic artery (n=4), SMA (n=1), jejunal artery (n=1), splenic artery (n=1). Angiographic treatment was successful in all patients by embolisation (n=5) or stent grafting (n=2). Pancreatic fistula rate was similar in PPH and “no-haemorrhage” groups (4 Vs 24; \( P=0.4 \)); MRSA infection was higher in PPH group (4/7 vs. 10/60, \( P=0.03 \)). Mortality from PPH despite successful haemostasis was 43%. Univariate and multivariate analysis identified MRSA infection as a risk factor for PPH. Conclusion CT angiogram followed by conventional catheter angiography is effective for treatment of late extraluminal PPH. MRSA infection in the abdominal drain fluid increases its risk and therefore aggressive treatment of MRSA and high index of suspicion are indicated.