

RENAL ARTERY STENOSIS COMPLICATED BY AN INTRAOPERATIVE RUPTURE OF RENAL ARTERY: A CASE STUDY

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Relevance. Renal Artery Stenosis (RAS) refers to the constriction of the renal arteries, which can develop either unilaterally or bilaterally. The causes of RAS typically include Fibromuscular Dysplasia, atherosclerosis, and vasculitis, with atherosclerosis being the predominant cause in older individuals. The condition can be detected through the use of Doppler ultrasonography and MR angiography. For patients with RAS who exhibit multidrug-resistant malignant hypertension, percutaneous transluminal angioplasty (PTA) is the preferred treatment.

Object. The placement of a covered stent can effectively manage bleeding in cases where rupture of the renal artery occurs during angioplasty. It is advisable to include a provision for the use of a covered stent in all types of stenting procedures to mitigate the risk of mortality in the event of vessel rupture.

Research methods. A 75-year-old male presented with complaints of severe breathlessness since half an hour and generalized edema. Pulmonary edema was seen on X-ray. The blood pressure wasn't controlled by multiple antihypertensive agents over a period of time and so, a nephrologist was consulted who suggested undergoing renal Doppler ultrasound, which showed bilateral renal artery stenosis. MR angiography showed 90% stenosis in left renal artery. The patient underwent PTA of left renal artery through right femoral arterial. Intraoperatively, the procedure was complicated by rupture of the renal artery. A covered stent was needed for cessation of bleeding and was ordered from another regional hospital as it wasn't available. By the time a covered stent was available, the procedure of inflating the balloon for 10-minutes, deflating it and checking the patency of ruptured vessel was repeated 4 times. The rupture didn't heal by primary and secondary hemostasis. On completion of the surgery, 100 ml of contrast non-ionic dye was used.

Results and discussion. On the follow-up after seven days of discharge, serum creatinine was found to be 1.37 mg/dl and there was marked improvement in the blood pressure, indicating the effectiveness of the treatment.

Conclusions. Angioplasty of the renal artery is a highly effective method for treating hypertension caused by renal artery stenosis (RAS) and for restoring kidney function. In cases where angioplasty is complicated by the rupture of the renal artery, the placement of a covered stent is an effective method of controlling

bleeding. Given its ability to promote hemostasis in various types of revascularization procedures, the use of covered stents may be a valuable approach to consider.

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ANALYSIS OF THE CAUSES OF DEATHS IN POSTOPERATIVE PATIENTS

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Relevance. It is known that the course and outcome of various surgical diseases can be unpredictable. This is due to the influence of operational stress, the presence of concomitant diseases, as well as the depletion of compensatory mechanisms of the body [1]. However, every surgeon is obliged to predict the course of the disease, taking into account all factors [2].

Object. To identify the most common causes of deaths after surgical interventions.

Research methods. The analysis of autopsy protocols of 69 deceased patients aged between 31 to 93 years (median age – 67.5 years) operated urgently and routinely in the Grodno University Clinic in 2022 was carried out. The causes of death of patients were established.

Results and discussion. Regardless of the disease for which surgical intervention was performed, the most common cause of death in the postoperative period was multiple organ failure, detected in 34 cases (49%), 15 patients (22%) developed endogenous intoxication due to pneumonia or peritonitis, and 13 (19%) – acute cardiovascular insufficiency. In 4 patients (6%), the postoperative period was complicated by the development of pulmonary embolism, and in 3 cases (4%), the cause of death was acute blood loss, which led to severe posthemorrhagic anemia.

Conclusions. Thus, the treatment of patients in the postoperative period is a complex and not always solvable task, which determines the relevance of the considered problem. Since the most common cause of death in postoperative patients