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Researches Classified – Panel Awards - Case Report

Emergency removal of transplanted graft due to the failure of clinical treatment of serious acute rejection in case of small bowel transplantation: case report

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Introduction: Intestinal transplantation is a complex procedure that has become more common in recent years. It can be performed isolated or with other organs of the digestive tract, which characterizes a multivisceral transplantation. Its indication mainly involves patients with irreversible intestinal failure, submitted or not to an enterectomy, and who have complications from parenteral nutrition. Among the main difficulties after transplantation is the immunosuppressive therapy, since the small intestine is an extremely immunogenic organ. Insufficient immunosuppression may cause graft rejection, but excessive immunosuppression may lead to Graft vs. Host Disease, where the intestine’s own immune cells attack Host organs. In Brazil, however, the practical experience with this type of surgery and with the management of immunosuppressive therapy is restricted because of the reduced number of small bowel transplants performed.

Objective: To report a case of small bowel transplantation with graft rejection and necessity of surgical removal of the graft.

Case Report: A male patient, 21 years old, presented a complicated acute appendicitis in July 2015, being submitted to appendectomy and right colectomy. After the operation, he developed thrombosis and intestinal infarction. This complication affected more than 90% of the patient’s small bowel, requiring extensive enterectomy. The patient developed short bowel syndrome and relied on parenteral nutrition. After 7 months in the home parenteral nutrition regimen, the patient underwent small bowel transplantation due to complications of parenteral nutrition. Immunosuppressive therapy was based on the use of tacrolimus. The patient presented no interurrences until the 6th postoperative month, when he developed systemic histoplasmosis, staying 33 days in the intensive care unit. He presented resolution of the condition with itraconazole. At the 18th postoperative month, he was admitted with fever and intense diarrhea. The ileoscopy examination showed intestinal ulcers and loss of villi. Graft biopsies were consistent with severe acute T cell mediated rejection. The patient was transferred to our institution to treat the rejection. The combined use of increased tacrolimus, pulse therapy with methylprednisolone,

use of thymoglobulin and use of monoclonal antibody against tumor necrosis factor alpha were not effective. The patient's general condition deteriorated and he had to be submitted to urgent removal of the transplanted graft. The patient returned to the parenteral nutrition regimen and underwent reconstruction of the digestive tract with anastomosis between jejunum and transverse colon 5 months after grafting. Currently, he is in outpatient follow-up using home parenteral nutrition.

Keywords: Small bowel transplantation; Graft rejection; Transplanted graft; Parenteral nutrition.