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The Features of Stomach Vascularisation Pattern and Their Impact on Oesophageal Reconstruction with a Gastric Pull-up

Dragos Predescu[1], Adrian Constantin[1], Bogdan Socea[2], Florin Achim[1], Alexandru Moraru[1], Silviu Constantinoiu[1]
[1]Department of General and Esophageal Surgery, "St. Mary" Clinical Hospital, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania
[2]Department of General Surgery, "Sf. Pantelimon" Emergency Clinic Hospital, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

Abstract
Regardless of the reconstruction surgery used, the fundamental concepts of visceral reconstruction are based on the vascular support needed for the substituting graft. The vascular factor is the main element of any reconstruction technique, as an underlying condition for the visceral material stretch and, along with other factor, for the suture safety. In the case of the stomach, a consistent vascular flow and the minimal vascular anatomy variations are the first theoretical argument. A second argument is based on the intraparietal vascular network features allowing for supplementing visceral perfusion as the blood flow is stopped in one or more pediculi. Graft hypoperfusion is, however, a potential cause of failure, and the most frequently invoked complication is, therefore, a high risk of anastomosis fistulae. A series of modern techniques - arteriography data for the pre-operative vascular reconstruction or Doppler laser fluorometry intraoperative assessments, graft oximetry, laser speckle (spot) scan or the use of indocyanine green staining (ICG) - represent methods of early determination of the gastric graft perfusion/microperfusion quality used in reducing such risks. The doubts regarding the gastric perfusion mandate the use of vascular augmentation techniques. If such techniques are not used, the final outcome is uncertain and difficult to correct.
Key words: esophageal reconstruction, gastric vascularisation pattern, gastric graft