

Abstract

The aim of this bachelor thesis is a brief introduction to the complex processing of the tissue samples obtained by endoscopic biopsy of the gastrointestinal tract with a special focus on the treatment of endoscopic specimens obtained by endoscopic resection or endoscopic submucosal dissection.

My work consists of a brief introduction to the gastrointestinal tract histology and description of therapeutic endoscopic methods such as endoscopic mucosal resection, endoscopic submucosal dissection, and radiofrequency ablation.

Additionally, an overview of the most important histochemical staining methods (hematoxylin - eosin, PAS reaction with Schiff 's reagent, and alcian blue with Schiff' s reagent), as well as immunohistochemical detection of antigens in the tissue samples is included. This work is focused on the widely used antigens CD31, podoplanin (D2-40), smooth muscle actin (SMA), and p53.

At the end of the thesis, I discuss the importance of correct sampling techniques and accurate histological processing of endoscopic specimens for determining a proper diagnosis, an essential prerequisite for selecting of an appropriate therapeutic method.

Keywords: endoscopic resection, gastrointestinal tract lesion, hematoxylin-eosin, PAS reaction, alcian blue, immunohistochemical detection