

# Letter to the Editor

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Dear Editor:

Please allow me to reply to the request of Dr. Rolando Ortega regarding the discussion about care of patients with liver diseases by gastroenterology specialists.

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Bogotá D. C., November 28, 2018

Doctor Rolando José Ortega Quiroz MD, MSc, FAASLD  
Director of the Division of Hepatology and Fibroscan  
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UGASEND

Dear Dr. Ortega:

In response to your request regarding the training and competence of the gastroenterology subspecialists of the National University of Colombia for management of patients with liver diseases, I cordially state:

Since the creation of the postgraduate program in Gastroenterology at the National University of Colombia, postgraduate students in this specialty, both those in the initial program for general practitioners as well as those for other doctors and specialists in Internal Medicine, receive training sufficient to enable them to treat patients with liver diseases, including prevention, diagnosis and treatment. This is explicit in the students' curriculum. The academic and scientific basis is as follows:

The liver is an integral part of the digestive system, it is not an isolated organ and, therefore, its diseases alter the intestinal tract. One of the most frequent complications of portal hypertension is bleeding due to esophageal and gastric varices which results in serious levels of morbidity and mortality. Its most important treatment is endoscopic. Gastroenterologists have deep training in endoscopy and are responsible for managing this complication either prophylactically or preventively by ligating large esophageal varices (greater than 5 mm) that have not yet bled and, also, treating and controlling actively bleeding varices. Similarly, gastroenterologists can treat bleeding gastric varices endoscopically with cyanoacrylate and other endoscopic modalities. In addition, argon plasma has now begun to be used for endoscopic management of neovessels and capilla-

ries that appear after esophageal varices. Similarly, there are other endoscopic interventions for portal hypertension.

The universal vision of medicine is for doctors to be as comprehensive as possible so that they will have the ability to resolve the most prevalent pathologies. Specific cases of difficult diagnoses and treatments require the assistance of other supra-specialists. It is impossible to fragment both the management of diseases because it would be unfeasible to practice medicine. An example of what happens in gastroenterology is the following: to become a gastroenterologist, you need to follow the academic path of first becoming a medical specialist in Internal Medicine and then a subspecialist in gastroenterology. After becoming a gastroenterologist, you can opt for an additional year in the following areas, which are offered at many universities worldwide.

- Pancreatology (pathologies of the pancreas).
- Inflammatory bowel disease (ulcerative colitis and Crohn's disease).
- Esophagology (diseases of the esophagus).
- Functional gastrointestinal disorders (irritable bowel disease, functional heartburn, hypersensitive esophagus and 15 others).
- Digestive physiology (Esophageal pH monitoring, impedance, manometry, and others).
- Therapeutic endoscopy, echoendoscopy, endoscopic retrograde cholangiopancreatography (ERCP).
- Transplant hepatology (management of patients who have had liver transplants).

This last clarification is fundamental because it is not "hepatology". If in fact such fragmentation were required, the impossibility of medical practice would be as follows: to treat a patient with ulcerative colitis, a supra-specialist in inflammatory bowel disease would be required; to manage a patient with gastroesophageal reflux or eosinophilic esophagitis, a supra-specialist in the esophagus would be required; and a supra-specialist in pancreatology would have to manage chronic pancreatitis and exocrine pancreatic insufficiency.

General hepatology is as large a field as pancreatology, esophagology or inflammatory bowel disease, among others. Moreover, where there are institutions specifically aimed at the management of liver diseases such as the Provincial Hospital Clinic of Barcelona where you studied. The supra-specialist who trains in hepatology is assigned to specific areas such as viral hepatitis or ascites. In these institutions they are responsible for care of patients with viral hepatitis and portal hypertension, respectively. In addition, viral hepatitis can be divided into hepatitis C and hepatitis B. Metabolic disease experts can be divided into those who specialize in nonalcoholic fatty liver disease (NAFLD)/nonalcoholic steatohepatitis (NASH), hemochromatosis, and other such diseases.

Then, to continue misinterpreting competencies and supra-specializations, a hepatologist would not be able to handle viral hepatitis or portal hypertension, NAFLD/NASH, if she or he does not have additional training in those entities.

To conceive of "hepatology" as a specific discipline would imply that an internist could not treat heart diseases including high blood pressure, pneumonia or kidney diseases such as urinary tract infections since these would have to be attended by a cardiologist, pulmonologist and nephrologist, respectively. In this order of ideas, a general practitioner could not serve patients, and what in the world would a gastroenterologist do?

The existence of these supra-specialties is mainly for research purposes. The exceptions are transplant hepatology, therapeutic endoscopy, endoscopic ultrasound, and others as simple as digestive physiology, which are used to treat patients with these specific pathologies on a daily basis and to solve their health problems based on the best published evidence, independently of whether the specialist does research and publishes it.

In justice, and because of the complexity of medicine, no one other than a gastroenterologist would choose to treat diseases of the liver, pancreas, or colon because those diseases throughout the world are integral to the training of gastroenterologists. Therefore, the paths from internal medicine to pancreatology, esophagology or hepatology would be inconvenient. To go directly from internal medicine to hepatology would be like going directly from general medical practice to laparoscopy without first becoming a surgeon.

Specialists and subspecialists are self-critical enough to know when a patient should be referred to a colleague with more knowledge and experience. There are gastroenterologists who do not perform colonoscopies, polypectomies or therapeutic endoscopy, and there are therapeutic gastroenterologists who do not treat patients with gastroesophageal reflux disease, inflammatory bowel disease, liver diseases or even patients with intractable *Helicobacter pylori* infections. Other gastroenterologists are dedicated to performing endoscopic procedures, including advanced therapeutics, or to treating patients with specific pathologies including hepatic ones. Their interests are so clear that they take one or two years of additional training, attend conferences and attend these patients for the rest of their careers.

More than 90% of all patients with diseases of the pancreas, colon, esophagus, liver and other organs who are seen as outpatients or hospitalized are seen by a gastroenterologist who must resolve their problems in response to the call of an internist. Specifically in the case of liver diseases, when a patient has fulminant hepatic failure (less than 10% of acute hepatitis) or there are complications from portal hypertension or other hepatic conditions, and

a patient must be clearly referred for liver transplantation, it is at that moment that the transplant hepatologist, liver transplant surgeon and hepatic transplant intensive care specialist intervene. The liver transplant surgeon is ultimately in charge of resolving this pathology that was already medically intractable and is responsible for controlling it in the immediate postoperative period. This patient will then be left in the hands of the transplant hepatologist.

There is another very different reality regarding acquisition of skills and abilities that really do need specific and complex training with highly specialized tutors. Among these areas in gastroenterology is the acquisition of expertise in endoscopic surgery such as endoscopic dissection of the submucosa (ESD), peroral endoscopic myotomy (POEM), and natural orifice transluminal endoscopic surgery (NOTES). These require intense, sophisticated, complex and specific training that includes practice on animal models and a very difficult learning curve before achievement of competency. This category also includes therapeutic echoendoscopy and ERCP. This contrasts with diseases of the pancreas, esophagus, gastrointestinal disorders, and general hepatology for which strong training in the subspecialty of gastroenterology is needed together with basic knowledge of epidemiology and statistics and study of the overwhelming medical literature on each of those subjects after having had a cross section of training during years of sub-specialization.

In conclusion, the official gastroenterology curriculum at the National University of Colombia provides appropriate

training for prevention, diagnosis and treatment of general pathologies of the digestive system including diseases of the liver, pancreas, esophagus and including inflammatory bowel disease, functional disorders, and pathologies of the small intestine and colon among others. Training in these areas is received throughout the sub-specialization. Students also acquire basic knowledge in gastrointestinal radiology, gastrointestinal pathology, digestive physiology, foundations of molecular biology, immunology and evidence-based medicine. Similarly, during the entire training period, they are continuously trained in diagnostic endoscopy and basic therapeutics (upper endoscopy, colonoscopy, endoscopic biopsies, polypectomy, endoscopic mucosal resection, esophageal dilatations, endoscopic hemostasis, percutaneous endoscopic gastrostomy, general concepts of ERCP, diagnostic and therapeutic echoendoscopy, and cholangioscopy. Those who are interested in the last three interventions can register for one or two month elective rotations and later complement them with the one or two years needed to acquire the skill in these areas. Something similar occurs for transplant hepatology, but students may find rotations here in Colombia or abroad in Barcelona, at Oxford and in other places.

With feelings of respect, appreciation and admiration,

**William Otero Regino, MD, FAGA, FACP**