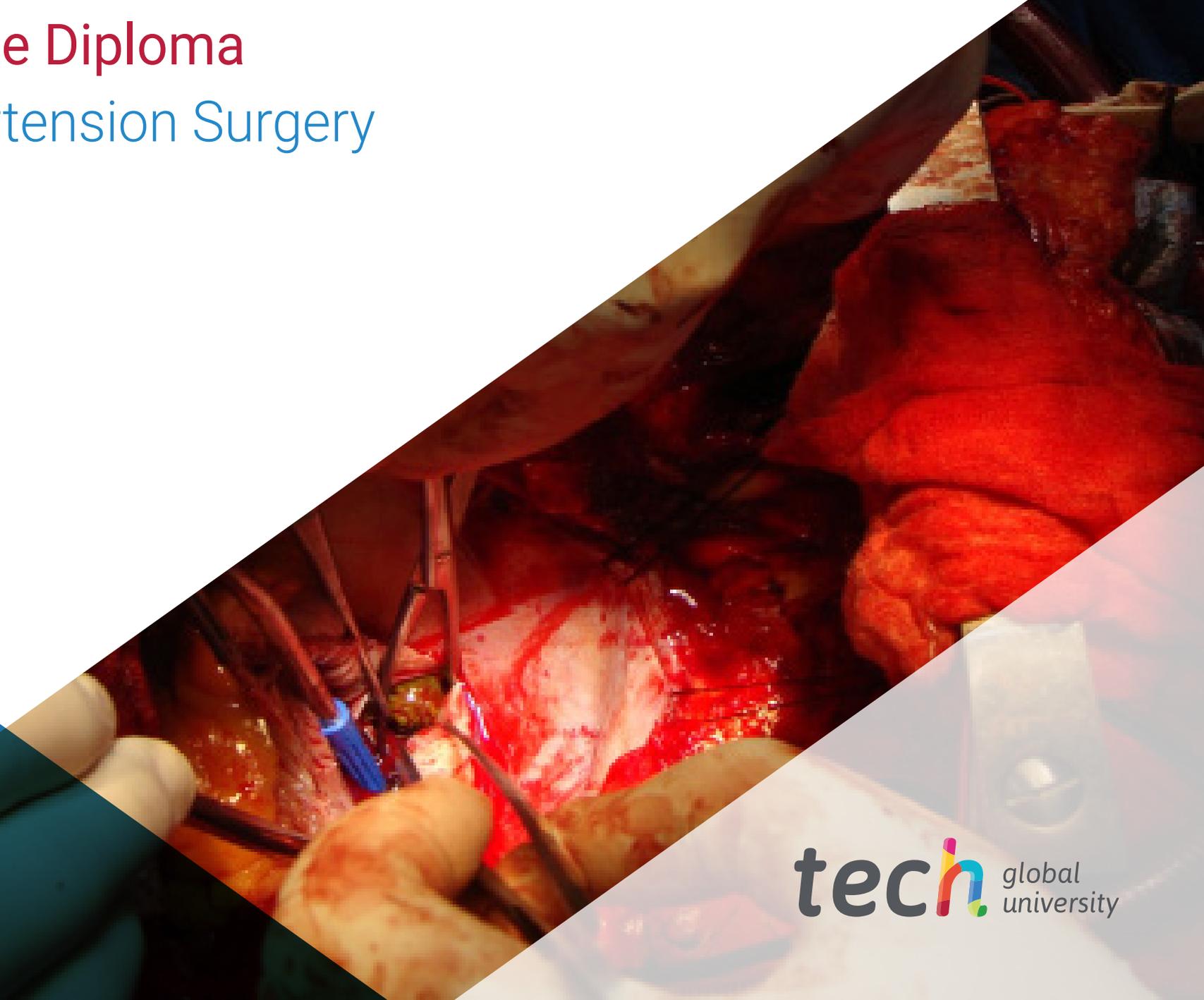


Postgraduate Diploma

Portal Hypertension Surgery





Postgraduate Diploma Portal Hypertension Surgery

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-portal-hypertension-surgery

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01

Introduction

Cases of Portal Hypertension affect a large part of the population, the most common causes being Venous Thrombosis or liver tumors. In their commitment to help their patients, surgeons take on the challenge of constantly updating their knowledge and handling the advances in this field. However, this is a complex challenge given the scarcity of up-to-date study programs on the subject. In order to respond to this need, TECH provides a comprehensive and up-to-date educational itinerary that delves into the most modern diagnostic techniques in terms of blood pressure and the most advanced therapeutic options. In addition, the university program has a 100% online format for greater convenience and flexibility of schedules for students.





“

Do you want to be at the forefront of Portal Hypertension Surgery? Enroll now in this comprehensive 100% online program"

Portal hypertension is one of the areas of hepatology that has undergone the most changes in recent decades. These range from a better understanding of its pathophysiology to improvements in therapeutic systems. An example of this is the pharmacological therapy for acute bleeding due to esophageal varices. In this context, physicians can drastically reduce the mortality of complications arising from this pathology. To achieve this, it is vital that specialists acquire greater knowledge about new therapy techniques and drugs.

In this context, TECH implements an innovative program dedicated to analyzing advanced diagnostic techniques and surgical strategies such as splenectomy. The educational itinerary addresses the signs of portosystemic collaterals, so that students can identify them correctly. It also offers keys to carry out continuous monitoring plans in order to verify the current status of patients. Also, physicians have the opportunity to analyze the management of bleeding through the use of sealants and hemostatics, allowing the fluid to remain in the blood vessels. In addition, liver function is described based on both markers and laboratory tests. In this sense, graduates of the program can examine the benefits of radiology and other techniques such as chemoembolization and image-guided biopsy.

It should be noted that the methodology of this program emphasizes its innovative nature. TECH offers a 100% online educational environment, tailored to the needs of busy professionals seeking to advance their careers. It also relies on the Relearning methodology, based on the repetition of key concepts to fix knowledge and facilitate learning. In this way, the combination of flexibility and a robust pedagogical approach makes it highly accessible. Furthermore, learners will have access to a rich library of multimedia resources in different audiovisual formats (such as interactive summaries and infographics).

This **Postgraduate Diploma in Portal Hypertension Surgery** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of case studies presented by experts in Hepatobiliopancreatic Surgery
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



Upgrade your knowledge of biliary tree anatomy with TECH, the world's leading online university according to Forbes"

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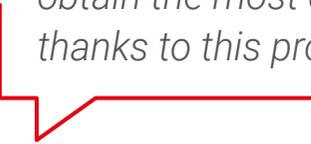
You will use hemostatic sponges and avoid surgical bleeding with the advanced contents of this program”

The program’s teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

Learn more about the use of magnetic resonance imaging and obtain the most detailed images thanks to this program.



You will achieve your objectives thanks to TECH's teaching tools, including explanatory videos and interactive summaries.



02 Objectives

This Postgraduate Diploma will allow students to approach the relevant anatomical variations for surgical interventions. In this sense, the educational itinerary will offer a detailed understanding of the hepatic vascularization. In addition, students will delve into the main benign and malignant conditions that impact this vital organ. The program also delves into the understanding of risk factors, disease progression and treatment options. In this way, graduates have before them a theoretical framework of excellence and in a 100% online format to broaden their skills on differential diagnoses and know how to proceed with patients with various complexities.





“

Get the most out of continuous patient monitoring and prepare yourself to provide the best postoperative care in pulmonary hypertension”



General Objectives

- ♦ Develop a thorough understanding of the normal anatomy of the liver, including vascular distribution, hepatic segmentation and anatomical relations
- ♦ Establish a solid foundation in normal liver physiology in order to facilitate the identification of pathologic deviations
- ♦ Establish a thorough understanding of the pathophysiology of benign liver diseases, including steatosis, chronic hepatitis, and other conditions
- ♦ Improve ethical decision making in the selection and application of diagnostic procedures, considering patient safety and well-being
- ♦ Encourage interest in research on pancreatic diseases and promote constant updating on therapeutic and technological advances



You will delve into the procedures of selective devascularization and prevent new varicose vein hemorrhages with the contents of this Postgraduate Diploma”





Specific Objectives

Module 1. Portal Hypertension Surgery

- ♦ Establish an in-depth understanding of the pathophysiologic mechanisms leading to portal hypertension, including liver cirrhosis and other causes
- ♦ Develop skills in identifying and classifying the different etiologies of portal hypertension, such as cirrhosis, portal thrombosis, and other underlying conditions
- ♦ Acquire skills in the preoperative assessment of patients with portal hypertension, considering risk factors and benefit from surgery
- ♦ Encourage collaboration with other healthcare professionals, such as hepatologists, interventional radiologists and anesthesiologists, for a comprehensive and coordinated approach

Module 2. Surgical Anatomy of the Liver

- ♦ Recognize and manage anatomical variations relevant to surgical interventions, preparing participants for diverse clinical situations
- ♦ Integrate anatomical knowledge with contemporary surgical techniques, facilitating accurate planning and execution of hepatic interventions
- ♦ Acquire specific skills for laparoscopic liver surgery, considering the anatomy in a minimally invasive environment
- ♦ Encourage active participation through practice in virtual anatomical dissection, case studies and interactive discussions

Module 3. Hepatic Pathology

- ♦ Develop the ability to identify and classify various liver diseases, including hepatitis, cirrhosis and metabolic disorders
- ♦ Become familiar with the various laboratory tests and imaging techniques used to assess liver disease, allowing for a comprehensive examination of the patient
- ♦ Assess the risk factors associated with liver disease and understand the progression of these conditions
- ♦ Develop skills in the planning and execution of treatment strategies, considering pharmacologic and surgical approaches

03

Course Management

In order to provide the highest educational excellence, TECH counts with a first class teaching staff. These professionals have extensive work experience, which has allowed them to integrate the teams of prestigious hospitals. As a result, the syllabus is characterized by having the most up-to-date and complete contents in Portal Hypertension Surgery. In addition, they provide students with the most advanced technological tools to contribute to the well-being of their patients.





“

The best experts in Portal Hypertension Surgery are included in the faculty of this program from TECH"

International Guest Director

Surgery and liver transplantation are the fields of research to which the eminent French physician and researcher Eric Vibert has devoted his professional career. For almost three decades, this expert has been involved in the holistic approach to primary liver cancer. Based on these interests, he has positioned himself as a true reference in this field, making significant contributions.

Dr. Vibert also leads a consortium called BOPA, which includes the University Paris-Saclay, the Ecole Mines Télécom and the Hepatobiliary Center of the Paul-Brousse Hospital (AP-HP). The aim of this project is to improve safety in operating rooms. To this end, its innovations are based on digital technologies, in gestation or already existing, which make it possible to increase the range of vision, speech and touch of the medical staff before any type of operation. These contributions, first implemented in simulated surgical rooms, have allowed the validation of multiple disruptive procedures.

In addition, this scientific pioneer is committed to connecting professionals from different fields in order to reinvent surgical practices. That is why his teams bring together engineers and computer scientists, as well as physicians, anesthesiologists, nurses and many other specialists. A work strategy that he continually integrates into his responsibilities and into the leadership of the Department of Surgery and Liver Transplantation at the Paul-Brousse de Villejuif Hospital in Paris.

In terms of academic impact, Dr. Vibert has more than 130 communications at international conferences and 30 plenary lectures. He also has an impressive H-index of 43, having authored 212 publications in first impact journals. He is also the author of the book *Droit à l'Erreur, Devoir de Transparence*, which deals with transparency and error management in medicine, and is the creator of the *Week-End de l'Innovation Chirurgicale*, with which he has left an everlasting medical-surgical mark.



Dr. Vibert, Eric

- ♦ Chief of Surgery and Liver Transplantation at the Paul-Brousse de Villejuif Hospital, Paris, France
- ♦ Head of the Surgical Innovation Group at the University of Paris Sud
- ♦ Specialist in Liver and Biliary Tract Cancer Surgery
- ♦ Head of the Surgical Innovation Group of GH Paris Sud
- ♦ Director of Research, Biomedical/Medical Engineering at the University Paris-Sud
- ♦ Creator and Organizer of the Week-End de l'Innovation Chirurgicale
- ♦ Doctor of Medicine, St. Antoine Faculty of Medicine, University Paris VI

“

Thanks to TECH you will be able to learn with the best professionals in the world”

Management



Dr. Al Shwely Abduljabar, Farah

- ♦ Head of the Hepatobiliopancreatic Surgery Unit at the Puerta de Guadalajara Hospital
- ♦ Doctorate in Medicine, University of Alcalá
- ♦ Specialist in General and Digestive System Surgery at the University Hospital of Guadalajara.
- ♦ Astellas Fellowship in Hepatobiliopancreatic Surgery and liver and pancreatic transplantation
- ♦ Official Master's Degree in Hepatology and Clinical Research from the University of Barcelona
- ♦ Official Master's Degree in Medical Expertise and Bodily Injury Assessment by the University of Barcelona
- ♦ Degree in Medicine from the University of Alcalá, Spain.
- ♦ Reviewer of the Central European Journal Of Medicine
- ♦ Member of the Spanish Association of Surgeons
- ♦ Editor of: Journal Of Liver and Clinical Research, EC Orthopaedics, Austin Pancreatic Disorders and Annals of Clinical Cytology and Pathology

Professors

Dr. López Marcano, Aylhin

- ♦ Physician at the Hepatobiliopancreatic Surgery Unit of the University Hospital of Guadalajara
- ♦ Doctorate in Medicine, University of Alcalá
- ♦ Specialist in General and Digestive System Surgery
- ♦ Graduated from the Luis Razetti School of Medicine
- ♦ Degree in Medicine from the Central University of Caracas



04

Structure and Content

This program will provide students with a thorough understanding of vascular pathophysiology and anatomy. The syllabus will provide a specialized analysis of common surgical procedures to address both hypertension and its complications. In addition, physicians will delve into the latest trends in primary prophylaxis of bleeding (including beta-blockers). Also, specialists will delve into hemostatic agents in liver surgery, emphasizing the use of absorbable gelatins or tissue adhesives. All this with an innovative teaching methodology in a 100% online format: Relearning.



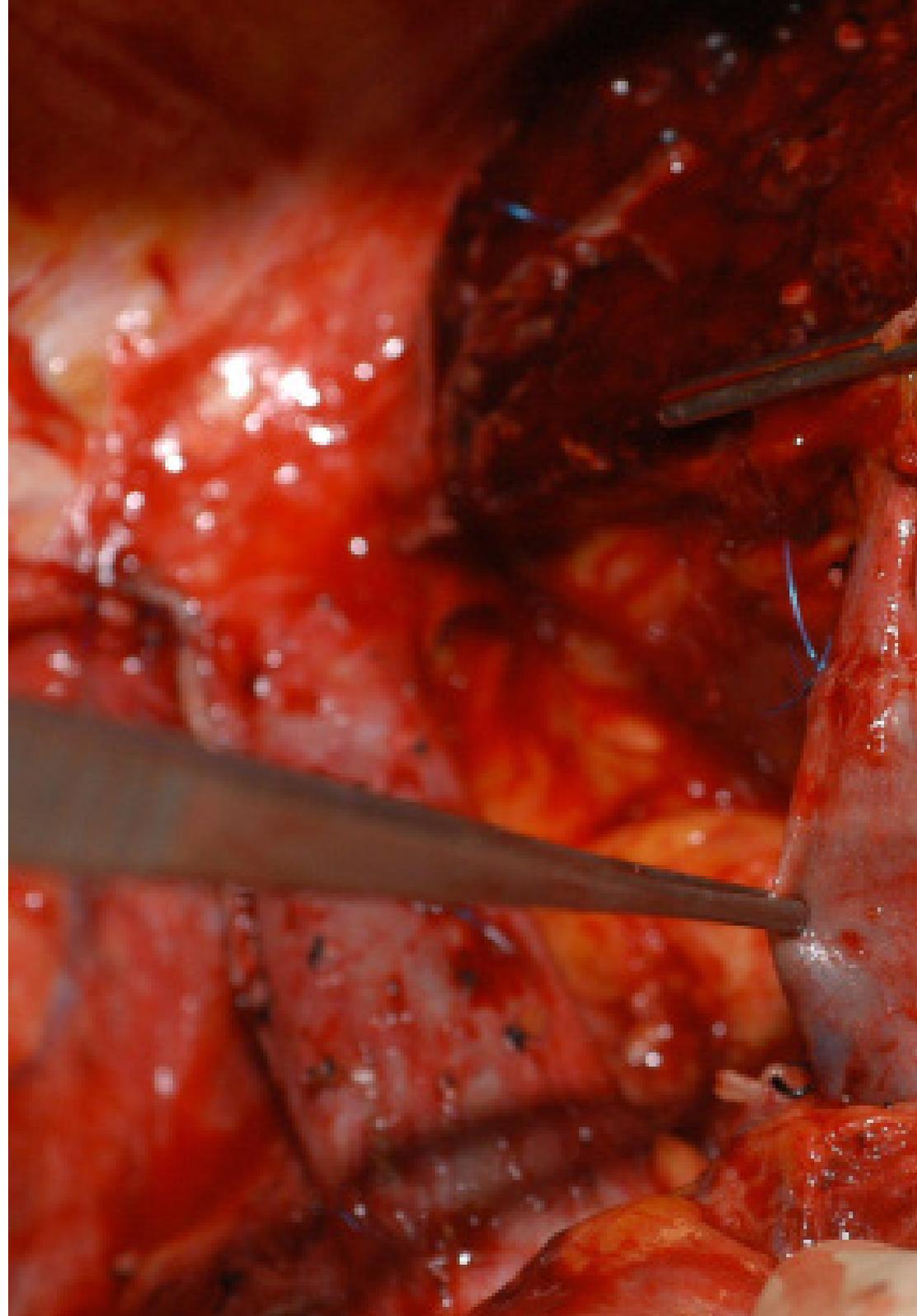


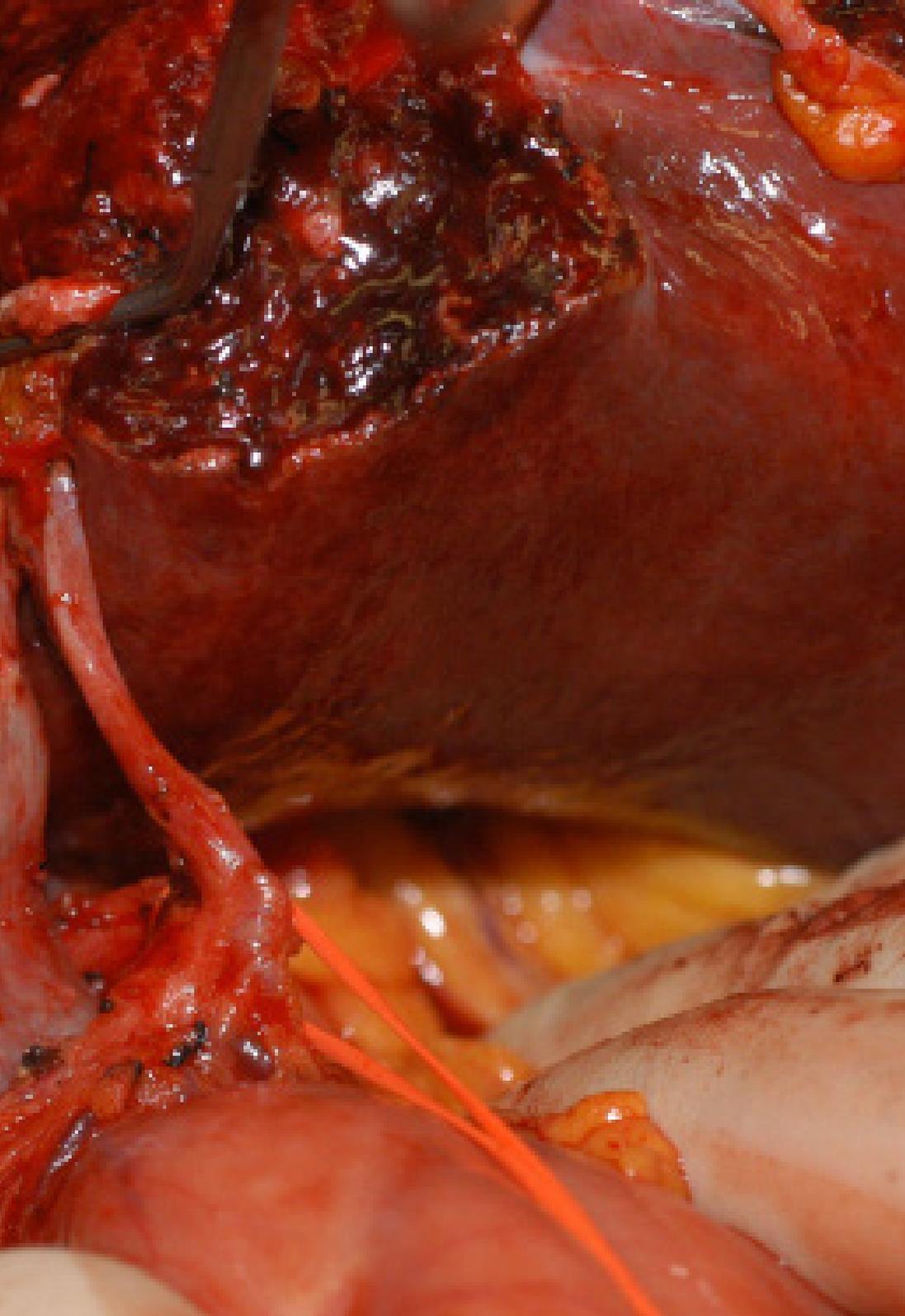
“

You will have access to a library full of multimedia resources in different audiovisual formats”

Module 1. Portal Hypertension Surgery

- 1.1. Pathophysiology of Portal Hypertension
 - 1.1.1. Blood Flow Obstruction
 - 1.1.2. Increased Flow Resistance
 - 1.1.3. Development of Portosystemic Collaterals
- 1.2. Etiology
 - 1.2.1. Classification
 - 1.2.2. Hepatic Cirrhosis
 - 1.2.3. Chronic Hepatitis
- 1.3. Primary Prophylaxis of Esophageal Variceal Bleeding
 - 1.3.1. Treatment of the Underlying Cause
 - 1.3.2. Beta-Blockers
 - 1.3.3. Endoscopic Sclerotherapy
- 1.4. Secondary Prophylaxis of Esophageal Variceal Bleeding
 - 1.4.1. Beta-Blockers
 - 1.4.2. Endoscopic Sclerotherapy or Elastic Ligation
 - 1.4.3. Development of Continuous Monitoring Plans
- 1.5. Treatment of Acute Esophageal Variceal Bleeding
 - 1.5.1. Patient Stabilization
 - 1.5.2. Fluid Therapy and Transfusions
 - 1.5.3. Pharmacotherapy
- 1.6. Portosystemic Shunts
 - 1.6.1. Procedure
 - 1.6.2. Objectives
 - 1.6.3. Indications
- 1.7. Devascularization Procedures
 - 1.7.1. Selective Devascularization
 - 1.7.2. Splenic Devascularization
 - 1.7.3. Gastric Devascularization
- 1.8. Surgical Treatment of Portal Hypertension
 - 1.8.1. Transjugular Intrahepatic Portosystemic Shunt (TIPS)
 - 1.8.2. Surgical Portosystemic Shunt
 - 1.8.3. Splenectomy



- 
- 1.9. Postoperative Care in Portal Hypertension Surgery
 - 1.9.1. Continuous Monitoring
 - 1.9.2. Care
 - 1.9.3. Pain Management
 - 1.10. Results of Portal Hypertension Surgery
 - 1.10.1. Portal Pressure Reduction
 - 1.10.2. Prevention of Complications
 - 1.10.3. Symptom Improvement

Module 2. Surgical Anatomy of the Liver

- 2.1. Liver Anatomy
 - 2.1.1. 1 General Aspects
 - 2.1.2. 2 Embryonic Development of the Liver of the Biliary Tract
 - 2.1.3. 3 Conclusions
- 2.2. Anatomical Connections of the Liver
 - 2.2.1. Superior Connections
 - 2.2.2. Anterior Connections
 - 2.2.3. Lateral Connections
- 2.3. Hepatic Vascularization
 - 2.3.1. Definition
 - 2.3.2. Types
 - 2.3.3. Conclusions
- 2.4. Anatomy of the Biliary Tree
 - 2.4.1. Organs
 - 2.4.2. Hepatic Ducts
 - 2.4.3. Conclusions
- 2.5. Hepatic Segmentation
 - 2.5.1. Anatomical Segmentation
 - 2.5.2. Division into Eight Segments
 - 2.5.3. Clinical Significance
- 2.6. Ultrasound Examination of the Liver Anatomy
 - 2.6.1. Position of the Patient
 - 2.6.2. Ultrasonic Probe
 - 2.6.3. Examination of the Liver

- 2.7. Type of Hepatic Anatomical Approaches
 - 2.7.1. Hepatectomy
 - 2.7.2. Segmentectomy
 - 2.7.3. Wedge Resection
- 2.8. Bleeding Management in Liver Surgery
 - 2.8.1. Use of Hemostats and Sealants
 - 2.8.2. Suture Techniques
 - 2.8.3. Blood Transfusion
- 2.9. Techniques of Vascular Control in Liver Surgery
 - 2.9.1. Main Techniques
 - 2.9.2. Most Used Techniques
 - 2.9.3. Conclusions
- 2.10. Hemostatic Agents in Liver Surgery
 - 2.10.1. Hemostatic Sponges
 - 2.10.2. Absorbable Gelatins
 - 2.10.3. Tissue Adhesives

Module 3. Hepatic Pathology

- 3.1. Pre-Operative Study
 - 3.1.1. Medical History
 - 3.1.2. Liver Function Tests (LFTs)
 - 3.1.3. Other Tests
- 3.2. Liver Function
 - 3.2.1. Key Liver Functions
 - 3.2.2. Bile Production
 - 3.2.3. Conclusions
- 3.3. Classification of Liver Diseases
 - 3.3.1. Infectious
 - 3.3.2. Metabolic
 - 3.3.3. Genetic





- 3.4. Preoperative and Intraoperative Diagnostic Methods in Liver Disease
 - 3.4.1. Imaging Tests
 - 3.4.2. Liver Biopsy
 - 3.4.3. Hepatic Gammagraphy
 - 3.4.4. Other Tests
- 3.5. Study of Liver Function
 - 3.5.1. Markers
 - 3.5.2. Coagulation Rates
 - 3.5.3. Laboratory Tests
- 3.6. Liver Volumetry
 - 3.6.1. Computed Tomography (CT) and Magnetic Resonance Imaging (MRI)
 - 3.6.2. Liver Ultrasound Scan
 - 3.6.3. Hepatic Gammagraphy
- 3.7. Diagnostic Imaging of Focal Hepatic Lesions in Patients With Chronic Liver Disease
 - 3.7.1. Abdominal Ultrasound
 - 3.7.2. Computed Tomography (CT)
 - 3.7.3. Magnetic Resonance Imaging (MRI)
- 3.8. Incidental Liver Lesions
 - 3.8.1. Differential Diagnosis
 - 3.8.2. Types of Lesions
 - 3.8.3. Treatment
- 3.9. Interventional Radiology in the Management of Liver Disease
 - 3.9.1. Image-Guided Liver Biopsy
 - 3.9.2. Percutaneous Liver Abscess Drainage
 - 3.9.3. Transarterial Embolization (TAE) and Chemoembolization (TACE)
- 3.10. Anesthetic Management in Liver Surgery
 - 3.10.1. Preoperative Assessment
 - 3.10.2. Hemodynamic Control
 - 3.10.3. Coagulation Management

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



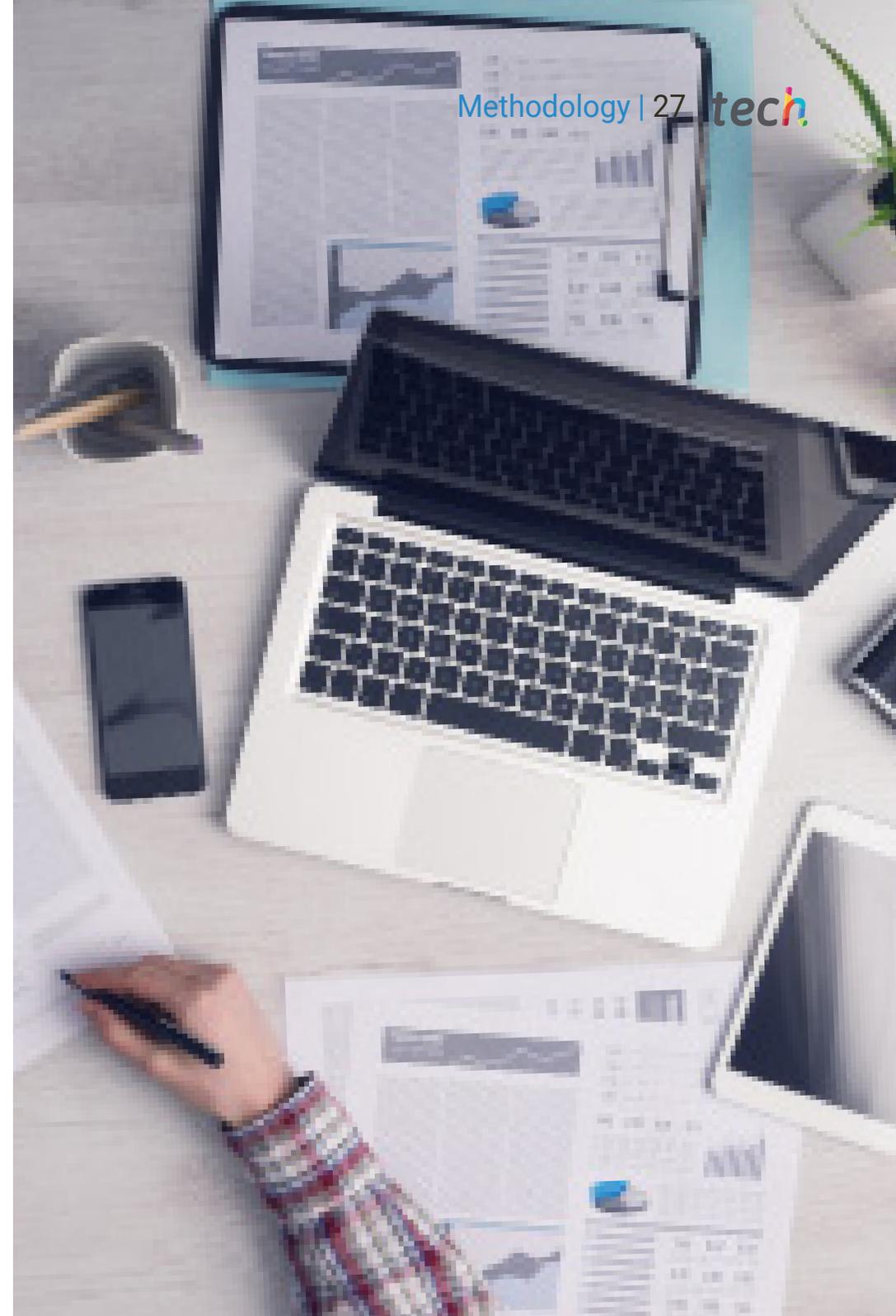
According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

“

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

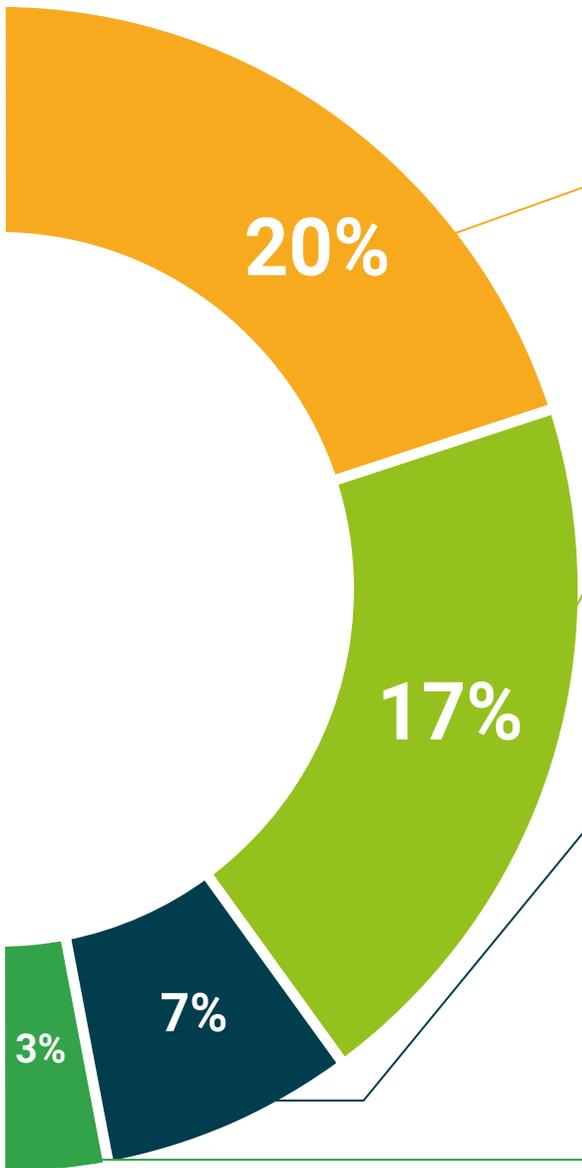
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

Certificate

The Postgraduate Diploma in Portal Hypertension Surgery guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.





“

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

This program will allow you to obtain your **Postgraduate Diploma in Portal Hypertension Surgery** endorsed by **TECH Global University**, the world's largest online university.

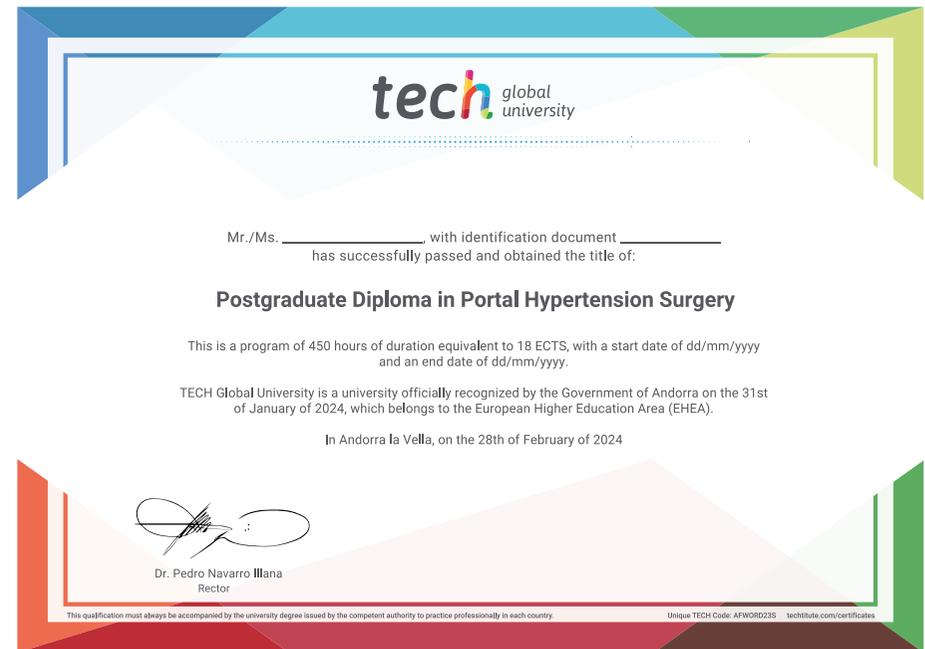
TECH Global University is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Portal Hypertension Surgery**

Duration: **6 months**

Accreditation: **18 ECTS**





Postgraduate Diploma Portal Hypertension Surgery

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
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- » Schedule: at your own pace
- » Exams: online

Postgraduate Diploma

Portal Hypertension Surgery