SPECIAL ISSUE

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VIII Congresso Nazionale ISSE
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Guest Editor: Dr. Girolamo Geraci[1], MD

L'VIII Congresso Nazionale della ISSE (Italian Society of Surgical Endoscopy) si è svolto a Palermo dal 28 al 30 ottobre 2010, organizzato dal Prof. Giuseppe Modica e del Prof. Carmelo Sciumè. Al Congresso, di alto valore scientifico, sono intervenuti Relatori italiani e stranieri, che hanno risposto adeguatamente alla esigenza di dare voce a docenti qualificati.

Gli argomenti trattati, tutti di natura chirurgica ed endoscopica, hanno toccato le tematiche fondamentali di Endoscopia Chirurgica e i nodi non ancora risolti di talune procedure operativo-terapeutiche. Corre l'obbligo di ricordare almeno i Relatori stranieri intervenuti a dare respiro internazionale al Congresso, in particolare il Prof. M. Dohomoto da Amburgo e la Dott.ssa Z. Galkova da Mosca, che hanno portato la loro esperienza, rispettivamente sul trattamento endoscopico dell'early esophageal cancer e sull'ecoendoscopia delle lesioni cistiche del pancreas.

L'interesse per le relazioni è stato molto alto e ciò è testimoniato dal numerosissimo pubblico presente nelle due aule del Congresso e dal gran numero di domande rivolte ai Relatori al termine delle relazioni. Restano indelebili nella memoria gli interventi di alcuni Relatori che hanno saputo esporre esperienze di lavoro, frutto di pluridecennale attività, con semplicità e pacatezza tale da far sembrare semplici delle procedure che semplici non sono, mettendo altresì in risalto la necessità della interdisciplinarietà fra l'Endoscopia Chirurgica e le altre specialità.

Particolare interesse ha suscitato anche la sessione delle comunicazioni libere, fortemente voluta dagli organizzatori e presieduta dal sottoscritto, che mirava a riportare le esperienze di chirurgia endoscopica dai più svariati ambiti, così come nell'obiettivo scientifico della ISSE: dalla chirurgia generale alla chirurgia toracica, dalla chirurgia vascolare all'endoscopia chirurgica, dalla chirurgia urologica alla neurochirurgia, tutte le comunicazioni hanno stimolato la successiva discussione, che si è protratta anche al termine della sessione stessa.

Le relazioni della sessione sono state presentate da giovani provenienti da tutta Italia, Assistenti in Formazione e Ricercatori, che con il loro entusiasmo hanno riportato le esperienze delle varie scuole di Palermo, Messina, Napoli e Padova, confrontando le esperienze e creando presupposti per future collaborazioni e scambi scientifico-culturali.

La speranza di tutti noi è che altri eventi simili a questo, che mirino soprattutto a valorizzare i giovani, si vengano ad aggiungere per rinnovare il respiro della nostra Associazione, a testimoniare il prezioso lavoro di relazioni culturali, che sono parte integrante della "mission" di ogni Società scientifica e che, nel nostro caso, resta ormai l'unico punto di aggregazione degli Endoscopisti Chirurghi.

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Narrow Band Imaging: technological basis of the method

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Introduction: electronic endoscopy, today, has a great influence about the diagnosis and the therapeutic advances of small and large bowel diseases. The authors, analyze the technological backgrounds of this methodic and compare the ancient endoscopic optical vision vs the modern electronic vision, their appliances in gastroenterology and in surgery.

Methods: a complete analysis of each electronic components of the tip of the endoscope and of the tower tools is necessary required for a complete and comparative vision of the operation mode. An excursus of new technologies in tissues coloring methods give emphasis about the narrow band imaging a type of electronic tissues coloring, that found its bases on the tissues haemoglobin capacity to capture the blue incident xenon light.

Discussion: the authors analyze too another important technique in electronic endoscopic view: the magnification.

Conclusions: this electronic technique permits a comparative valuation of single cellular patterns in every tissues area of interesting. NBI and magnification imaging, today, are the gold standard techniques for diagnosis but, also, permit the complete extirpation, all in one time of the pathological diseases.

Subintimal stenting for superficial femoral artery long occlusion in patients with critical limb ischemia

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Introduction: Subintimal recanalization of chronic totally occluded superficial femoral arteries (SFA) has gained increasing attention as an effective approach for limb salvage in patients with critical limb ischemia (CLI). Use of stents in treating SFA lesions has increased with the intention to improve arterial patency. Our aim was to evaluate the feasibility and mid-term outcomes of subintimal stenting in long occlusions of the SFA in patients presenting CLI.

Methods: A retrospective review of consecutive patients admitted to our unit with chronic occlusion of the SFA and CLI between september 2008 and september 2010 was performed. Within this group, the subintimal angioplasty with primary stenting was used in 14 SFAs in 12 patients (10 men). The mean age was of 66.1 (range 57-80)years;
nine (75%) patients had diabetes mellitus and 3 (25%) were on chronic hemodialysis. Two of them were in Rutherford category IV, six in Rutherford category V and the remaining four patients were in Rutherford category VI (advanced foot gangrene). All patients had an ultrasound examination and preoperative mean ankle-brachial index (ABI) was 0.38 (range 0.23-0.61).

Results: All procedures were performed in a dedicated endovascular suite under local anesthesia. The average length of SFA occlusions was 18.7 cm (range 10-35 cm). The target vessel was recanalized *via* a contralateral approach in all cases using standard subintimal technique. In one case was not possible to re-enter the looped wire into the true lumen. In this patient a re-entry device (Outback) was successfully employed to complete the procedure. The technical success rate of standard subintimal recanalization was of 91.7%. Eighteen Protégé EverflexÒ stents were implanted (1.5 stent per patient) in 14 SFAs. No death occurred in the perioperative period. The mean postoperative ABI increased to 0.59 (range 0.34-1). The six-months primary patency rate was 85.7%. Limb salvage (freedom from major amputation) was of 100% at a medium follow-up of 15.4 months (range 1-24 months).

Conclusions: The subintimal angioplasty with routine stenting is a feasible and safe technique for long SFA occlusions even in patients with severe chronic CLI. This technique provides successful short-term primary patency and limb salvage.

"Rendez-vous" technique: personal experience

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Introduction: The "rendez-vous" technique provides the contemporary percutaneous trans-hepatic (PTC) and endoscopic (ERCP) approaches, to facilitate the cannulation of the bile duct, in unfortunate cases were the approach to biliary tree fails for anatomical, neoplastic or iatrogenic reasons.

Materials and methods: In a period of 3 years (2007-2010) were performed in the Service of Digestive Endoscopy Unit of General Surgery and Thoracic 548 ERCP, 59 of which (11%) have failed due to the inability to visualize the papilla (25%), to intradiverticular ampulla (54%) or anatomical abnormalities (21%). Of the 44 pre-cut attempted, 14 have failed (neoplastic stenosis of the biliary tree), and then we proceeded to the execution of "rendez-vous" technique.

Results: The "rendez-vous" technique was successful in 11/14 cases (79%) and failed in 3 (21%), for biliary tree stenosis impassable even trans-hepatic access. We proceeded to conservative treatment in 100% of cases without surgery, and only in 43% we recorded minor complications (2 cases of gallstone ileus, 1 case of bleeding after liver puncture, 2 cases of fever, 1 case of moderate acute pancreatitis). We not registered procedure-related mortality.

Conclusions: from our data, rendez-vous technique is very useful in cases of difficult cannulation of the bile duct and after failure of pre-cut. The US-guided PTC is easy to run and burdened by low incidence of complications. Every team that treats bilio-pancreatic disorders should take into account as an additional treatment option this technique; even if not frequently used, can solve complex cases of biliary strictures otherwise destined to failure.

Biliary stenting for postoperative benign bile duct strictures. Personal experience

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Introduction: to describe the management and outcome after endoscopic treatment of 23 patients with postoperative benign bile duct strictures (BBDS) managed in our Department from 2000 to 2010.

Materials and methods: data were collected retrospectively on 23 patients treated in the Service of Diagnostic and Operative Endoscopy of the Operative Unit of General and Thoracic Surgery (Policlinico "Paolo Giaccone", Palermo) with BBDS between 2000 and 2010. All patients underwent ERCP (endoscopic retrograde cholangiopancreatography). Follow-up and pharmacological therapy post-ERCP were conducted by scheduled medical audit.

Results: of 23 initial patients, 20 undergoing endoscopic stenting (3 with complete transection were invited to surgery), 16 had completed treatment with symptoms resolution (mean follow-up of 70 months). 1 patient died of reasons unrelated to biliary tract disease before the completion of treatment. 7 had not completed treatment. Of 16 patients who had completed treatment, 13 were considered to have a successful outcome without the need for follow-up invasive, diagnostic or therapeutic interventional procedures. Overall, a successful outcome, was obtained in 65 % of patients, including those requiring a secondary procedure for recurrent stricture.

Discussion: the management of postoperative bile duct strictures major bile duct injuries remains a challenge for even the most skilled biliary tract surgeon and endoscopist. The 1990s saw a dramatic increase in the incidence of bile duct strictures from the introduction and widespread use of laparoscopic cholecystectomy. The management of these injuries, short-term outcome and follow-up have been reported.

Conclusions: postoperative bile duct strictures remain a considerable surgical challenge. Management with endoscopic cholangiography to delineate the postoperative anatomy and to place biliary stents, to solve the symptoms, is associated with a

successful outcome in up to 65 % of patients, in well experienced teams. Endoscopic treatment should be the initial management of choice for postoperative bile duct stenosis, as a real alternative to surgical reconstruction: because his failure will not compromises the following surgical treatment: prior endoscopic treatment does not preclude surgery, whereas endoscopic treatment is impossible once a Roux-en-Y loop has been constructed.

What to do when endoscopic retrograde cholangiopancreatography fails? Personal experience.

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Introduction: Endoscopic retrograde cholangio pancreatography (ERCP) failure is a rare and sometimes is a dramatic reality too for the management of bilio-pancreatic tract disorders. In these cases, it needs to utilize others alternative or mixed operative technique.

Materials and methods: Over a 6-year period, a total of 757 ERCPs were performed in treated in the Service of Diagnostic and Operative Endoscopy of the Operative Unit of General and Thoracic Surgery (Policlinico "Paolo Giaccone", Palermo). In seventeen of these ERCPs the standard endoscopic technique failed and we employed alternative techniques such as interventional radiology or surgical management or double endoscopic approach.

Results: In all 17 failed ERCPs (2.2%) the alternative procedures allowed us to success in bilio-pancreatic disease (Rendezvous, Wirsung stenting).

Conclusion: ERCP is an operator-dependent procedure. Even in expert hands failure occurs in 3% to 10% of cases. ERCP failure doesn't be considerated a dramatic situation in the management of the bilio-pancreatic disease for a multidisciplinary team (endoscopist, surgeon and interventional radiologist) whose cooperation allows to success.

Postoperative dysphonia. Preliminary results of a prospective study

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Introduction: there is currently a lack of consensus to support the proper timing for post-operative laryngoscopy that is reliable to support the diagnosis of laryngeal or vocal fold lesions after surgery and there are no study in international literature about the entity of laryngeal trauma in prolonged oro-tracheal intubation.

Aim of our study is to evaluate the statistical relation between anatomic, anesthesiological and operative variables in the case of post-operative hoarseness, dysphonia or impaired voice register.

Materials and methods: 16 patients (12 thyroidectomies, 1 total gastrectomy, 2 videolaparoscopic cholecistectomies and 1 hemorrhoidectomy) divided in thyroidectomy group (A) and non-thyroidectomy group (B) underwent direct laryngoscopy before surgery, within 6 hours, after 72 hours and after 30 days, to evaluate motility and breathing space, phonatory motility, true and false vocal folds oedema and arytenoids oedema. We evaluated also mean age (A: 54.9, B: 39.5), sex (A: 1:1.6, B: 1:3), cigarette smoke (A: 21%, B: 25%), atopic comorbidity (A: 32%, B: 25%), Mallampati class (A: 50% 1, 40% 2, 10% 1; B: 75% 1, 25% 2), duration of intubation (A: 155', B: 158.3'), Cormack-Lehane score (A: 25% 1, 75% 2; B: 85% 1, 15% 2), possible difficult intubation (0 in group A but with spindle use, B: one case (15%) of spindle use and 3 intubation attempts). No complication during the laryngoscopy were registered.

Results: in our experience, the only statistically significant relations were found in bilateral arytenoids oedema in case of multiple intubation attempts ($p < 0.02$) and in monolateral arytenoids oedema in case of spindle use ($p < 0.05$). All the lesions were treated with medical therapy.

No statistical relation was found for the prolonged intubation, gastro-esophageal reflux, BURP manoeuvre (backward upward right sided pressure) and Mallampati and Cormack-Lehane class more than 2.

Conclusions: laryngoscopy is essential for the detection of arytenoid lesions after oro

-tracheal intubation for general anesthesia, not directly related, in case of thyroid surgery, with hypothetic laryngeal nerve palsy. In our opinion, a part of temporary postoperative dysphonia or hoarseness is due to monolateral or bilateral arytenoids oedema, secondary to prolonged or difficult oro-tracheal intubation.

"Difficult choledocholitiasis": endoscopic removal of Dormia basket impacted in biliary tree

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Introduction: endoscopic retrograde cholangiopancreatography with endoscopic sphincterotomy (ERCP + ES) represents the golden standard for the treatment of choledocholithiasis; the most common complications of this technique are bleeding, perforation, sepsis, cholangitis and pancreatitis. Is extremely rare, but well documented in the literature, the occurrence of rupture of the Dormia basket in the common bile duct with large stone trapped between the chopped-off branches (0.8-5.9%).

Materials and methods: we describe a case of rupture of Dormia in common bile duct in a patient with difficult residual stones, submitted a month before to cholecystectomy, choledocholitotomy, grooming of the biliary tree and direct suture of common bile duct over T-tube (Kehr of Italian authors).

Results: the patient underwent ERCP (we reported pyloric stenosis and the papilla of Vater in a duodenal diverticulum): the cholangiography confermed the presence of 2 centimetric stones. One of the two stones, during the extraction operations, was trapped between the branches of the Dormia basket. It was therefore with sessions of ESWL and subsequent controls trans-T tube cholangiography showed the shift of stone-Dormia complex, and thus the fragmentation of the calculation. In the second ERCP, the stone was removed with the broken Dormia, using a foreign body forceps.

Conclusions: The best treatment of this rare complication consists of an integrated endoscopic (ERCP + ES) and extracorporeal shock wave lithotripsy (ESWL) approach, which combines, in experienced hands, a minimum risk to the patient without the need for a laparotomy.

VATS in diagnosis and treatment of solitary pulmonary nodule

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Introduction: Video-assisted thoracic surgery (VATS) is used in a wide range of pulmonary and mediastinal conditions both in diagnostic and in operative approach. The diagnosis and therapy of solitary pulmonary nodule is an important challenge because its early and correct treatment can change the natural history of malignant lung disease, expecially in stage IA.

Discussion: Thoracoscopic procedures give us the opportunity to perform a complete exeresis of a pulmonary nodule ensures a definitive treatment in case of benign pathologies and initiating the correct therapy for malignant lesions.

Major lung resections by VATS, avoiding thoracotomy, has been used since the early 90s. Even if it has been proven to be both safe and technically feasible, it's not routinely performed in most hospitals. Comparing VATS lobectomy vs open technique, it's result to be a safe procedure that meets oncological criteria for lung cancer surgery (local recurrence, oncological radicality, overall survival, desease free survival), it allows shorter postoperative hospitalization and minimal sequelae for the patient, shows better outcome regarding pain and muscle function and has a low complication rate. It's also a suitable technique for those patients who has reduced cardiopulmonary function.

Conclusions: We believe that this technique should become the operation of choice for early stage NSCLC. Furthermore sublobar resection should be considered as an alternative for stage IA NSCLC cancers 2 cm or less, even in low-risk patients, because several institution and some retrospective reports shows that in carefully

selected patients limited anatomical resection (segmentectomy) could overlap lobar resection.

Utility of the EBUS-TBNA for diagnosis and staging of lung cancer

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Introduction: Lung cancer continues to be the leading killer among all cancers. Despite recent progresses in treatment, the 5-year survival rate for lung cancer remains at approximately 15%. Sampling of lymph nodes is important to a correct valuation of N and, then, for a correct and more accurate staging of lung cancers. Accurate staging of NSCLC is important not only to determine the patient's prognosis, but to aid in deciding on a treatment plan, as the presence of mediastinal lymph node involvement is diagnostic for stage III lung cancer and suggests inoperability and the need for treatment with chemotherapy, radiation, or both. If the patient has not nodal involvement, surgery is the treatment of choice.

Discussion: EBUS-TBNA allows sampling of upper and lower paratracheal (stations 2 and 4), station 3, and subcarinal (station 7) lymph nodes, the nodes most frequently sampled during cervical mediastinoscopy. In addition, it can also reach hilar and interlobar lymph nodes (stations 10 and 11). In contrast, endoscopic ultrasound–guided fine-needle aspiration (EUS-FNA) performed through the esophagus provides access to paraesophageal and inferior mediastinal lymph nodes (stations 7-9) with limited or no access to the subaortic (station 5) and para-aortic (station 6) nodes. The objective of non–small cell lung cancer (NSCLC) staging, when there is no evidence of distant metastases, is the evaluation of mediastinal lymph node involvement.

Conclusions: The EBUS is a minimally invasive, safe, and highly accurate procedure. The most important application of this technology, however, is the use of linear EBUS to accurately stage the mediastinum in patients with known or suspected lung cancer. Accurate diagnosis and staging of lung cancer is crucial for prognostic and therapeutic decision making.
The current findings suggest that EBUS-TBNA should be considered in the preoperative staging of all patients with and without mediastinal lymph node enlargement on CT scan and with or without PET activity in the mediastinum.

Capsule endoscopy in selected patient after Michelassi Stricturoplasty for Crohn's disease with negative SBFT: a case report.

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Introduction: the use of wireless capsule endoscopy in Crohn's disease after surgical therapy has been a matter of debate.

Case report: we report the case of a 27-year-old woman operated for Crohn's disease with a Michelassi stricturoplasty presenting with anaemia. We tested the patient with small bowel follow throught (SBFT) before undertaking a wireless capsule endoscopy that confirmed the absence of stenotic tracts.
The wireless capsule was retained next to the distal edge of the Michelassi stricturoplasty, where it revealed an otherwise undetected stenotic recurrence. We successfully treated the recurrence with a Heineke-Mikulicz stricturoplasty on the stenotic outlet of the previous Michelassi, extracting the capsule.

Results: we found our treatment effective.

Conclusions: we believe that capsule endoscopy can be performed carefully in patients operated on for Crohn's disease, because sometimes the conventional radiology cannot be excluded inflammatory stenosis than anatomic stenosis that represented a contraindication to perform a capsule endoscopy.
Further studies are needed to clarify its role in patients with long-stricturoplasties and to establish which examination could be the most effective in selecting patients.