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Successful Surgical Treatment of Anterior Fusion Implants Injury of the Cervical Esophagus: Two Case Reports

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We report of two patient's cases, who underwent anterior cervical fusion for polytrauma due to car accident. The patients suffered very rare complications of the surgery: cage dislocation into the cervical esophagus in first case and injury of esophageal wall with fistulae formation in the second one. By surgical treatment the extraction of the cage, removal the ventral plate and repair of the esophageal wall defect were performed. To prevent failure of the sutures placed on the wound of the esophagus, the method of covering the suture line with a pedicled flap cut from the medial portion of the sternocleidomastoid muscle was used. Feeding gastrostomy was also created. The control X-Ray examination was performed at 6th p/o day, which reveals no extravasation and free passage of contrast to the stomach. We consider, that the method of covering the suture line by pedicled flap from sternocleidomastoid muscle in cases of difficult suturing of defects of the cervical esophagus, is a good surgical option. Surgeons should be aware of the risk of implant injury of esophageal wall and cage dislocation of cervical fusion procedure.

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Toward an Etiology of Celiac Disease

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The review proposes a model of the etiology of celiac disease. It describes how an enteroviral attack by a lytic virus leads to hyper-extracellular Transglutaminase 2, (Tg2), evident at all stages of the disease by the presence of anti-tTG. The demand for Tg2 is supplied by both the cell and the lytic virus. The demand leads to excess Tg2 passing through the cell wall, excess ingress of Ca^{2+}, the destruction of the mitochondria by Ca^{2+}, and pyroptosis of the cell. The increase in extracellular Tg2 during the cell's life and following pyroptosis has two effects. First, it binds a C1r inhibitor to the vascular wall, preventing C1r-LP from converting prehaptoglobin (zonulin) into haptoglobin, causing the weakening of the tight junctions among the epithelial cells and allowing the entry of extraneous luminal materials and particularly the access of Tg2 arterial and luminal, as it is now open directly to the lumen and the mesenchyme structure. It is this Tg2 that damages the villus structure as the Tg2 binds fibronectin into the mesenchyme, causing scarring, shrinkage, and turning the villi into the rigid scarred structures characteristic of CD. The model suggests why CD is a chronic lifelong disease reactivated upon the resumption of gluten consumption. A discussion of refractory CD follows. The paper explains how extracellular transglutaminase causes prehaptoglobin (zonulin) and damages the extracellular membrane. Thus, prehaptoglobin (zonulin) is a symptom, not a cause. Notably, the paper demonstrates that the basic tenet of autoimmune diseases that the cells destroy themselves is incorrect, at least for CD. Applying this etiology to other conditions may be relevant because of the almost universal glutaminolysis in cells and the substantial amount of Gluten in modern diets.

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Series of Clinical Studies on the Eradication of Helicobacter Pylori with the Potassium - Competitive Acid Blocker- Amoxicillin Dual - Therapy Regimen

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In recent years, the Potassium - competitive acid blocker (P-CABs) - amoxicillin dual - therapy regimen has been recommended for the eradication of Helicobacter pylori (H.pylori). However, there are still uncertainties about the optimal drug dosage and treatment duration. Our research group carried out a series of multi - center clinical studies in Fujian Province, China, aiming to explore the efficacy and safety of this dual - therapy regimen for H.pylori eradication. The study covered different treatment durations (7 - day, 10 - day, and 14 - day), various types of P-CABs (vonoprazan, tegoprazan, and keprazan), and different dosages of P-CABs. The results demonstrated that the 10 - day and 14 - day dual - therapy regimens outperformed the 7 - day one, and the 10 - day regimen was non - inferior to the 14 - day one. Moreover, all dual - therapy regimens with different P-CABs achieved an eradication rate of over 90%, and the low - dose P-CABs-amoxicillin dual - therapy regimen was as effective as the high - dose one. These findings hold significant implications. In China, they can directly guide clinicians in Fujian and other regions to select more appropriate treatment options for H.pylori eradication, potentially improving the overall treatment efficiency and reducing unnecessary medical costs. On a global scale, considering the high prevalence of H.pylori infection worldwide, our research provides valuable references for international medical communities. It offers a new perspective on optimizing the P-CABs - amoxicillin dual - therapy regimen, which may contribute to the development of more standardized and effective treatment strategies for H.pylori eradication globally.

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The Difference in Metabolic and Chronological Age is Associated with Steatosis and Liver Fibrosis

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Background: The two most common types of fatty liver disease (steatosis) are nonalcoholic fatty liver disease (NAFLD) and alcoholic fatty liver disease (AFLD). NAFLD affects about 30% of people in Western countries and 10% of people in Asia. In the United States, rates are about 35%, with about 7% having severe NASH. NAFLD affects about 10% of children in the United States. Fat accumulation in the liver is accompanied by a disorder of a series of metabolic processes, i.e. metabolic dysfunction with multiple parallel metabolic shocks throughout the body.

Material and Methods: A monocentric, controlled, randomized study was conducted involving 20 practically healthy individuals and 31 patients with hepatomegaly without additional specific symptoms of liver pathology. Liver steatosis degree measurement by the Controlled attenuation parameter (CAP) transient elastography. Metabological age (Met-age) was determined based on tetrapolar multifrequency bioimpedancemetry with vector analysis (BIM-V).

Results and Discussion: MET-age younger to CHR-age has significantly more Body Cells Mass (BCM) proportion (50,5 (95%CI =50,0-51,1) vs. 43,9(95%CI =42,8-45,0) and less content of Fat Mass (in kg) fixed -14,7 (95%CI =13,7-15,6) vs. 27,9(95%CI =25,3-30,5. The parallel comparition analysis the MET-age, steatosis (STe) and liver fibrosis (F) show following. In practically healthy people Met-age oldest 2 years or more than CHR-age (Age Diff) was found in the subgroup with severe steatosis (S=3) in 88,9% (8 of 9)(95%CI=51,8 – 99,7) and in 1 of 11 individuals with mild.

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Endoscopy after Bariatric Surgery Case Series

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Morbid Obesity contributes to the constellation of medical comorbidities that comprise Metabolic Syndrome. As >2/3 of America is Overweight (BMI 25-29.9) or Obese (BMI 30+). There are many treatment modalities for Morbid Obesity, but none is more effective long term than Bariatric Surgery, not even the newest GLP-1 agonists can compete with the Laparoscopic Sleeve Gastrectomy (LSG) or the Roux-en-Y Gastric Bypass (RYGB). About 300,000 Metabolic and Bariatric Surgery (MBS) procedures were performed yearly (1/1000 population of the US per year).

As surgical treatment for Morbid Obesity becomes more common, we as Gastroenterologists must continue to learn about the topic and how to treat potential complications. Sleeve Gastrectomy continues to be the most performed procedure, RYGB continues to be 20-25% of the MBS volume yearly. RYGB complications that may require Endoscopic interventions may include: Leak (which is usually at the Gastro-Jejunostomy/GJ) and may require stenting, Stricture (which may require dilation with either an endoscopic balloon or with a bougie, Formation of Marginal Ulcers, Bleeding (which can require any number of methods to control endoscopically, owing to the stomach's rich blood supply), Perforation, Pouch or GJ enlargement.

The Gastrogastric Fistula (GGF) is a rare (1%) but complex problem that requires clinical insight and suspicion. GGF typically presents with: weight regain, pain, worsening GERD symptoms. It may occur because of a complication from surgery (leak, infection, bleed) where a fistula forms between the gastric pouch and the remnant stomach due to a staple line breakdown. Alternatively, it may result from iatrogenic methods.