

Enteron

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Dear Doctor,

Greetings from Micro Labs limited. We are happy to bring you “**ENTERON**” which contains latest and interesting news in the field of Gastroenterology.

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Looking forward to your valuable feedback

Best Regards,

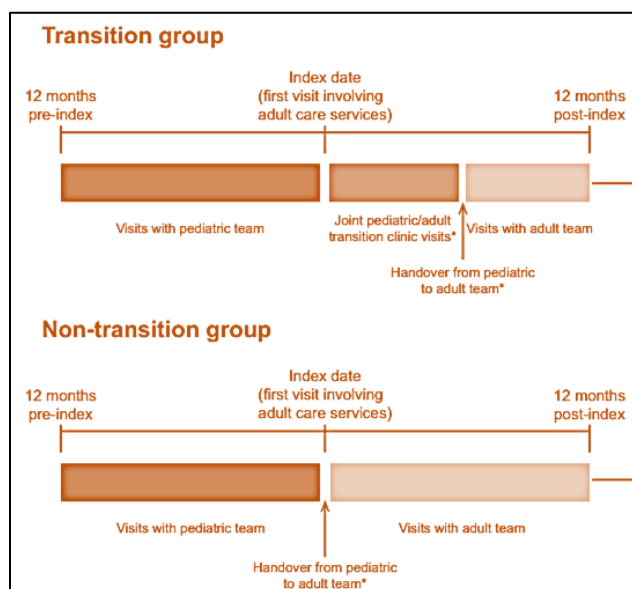
Medical Team, Micro Labs Ltd

Inflammatory Bowel Disease Benefits of Structured Pediatric to Adult Transition - The TRANSIT Observational Study

The inflammatory bowel diseases (IBDs), such as ulcerative colitis and Crohn's disease, are chronic inflammatory illnesses of the gastrointestinal tract that are most commonly diagnosed in adolescence and young adulthood, with a rising frequency in juvenile populations. Because these problems are so frequent in children, most paediatricians and other paediatric doctors will come with children with IBD in their daily practise. In genetically susceptible individuals, inflammatory bowel disease is triggered by a dysregulated mucosal immune response to intestinal microbiota.¹ IBD, as a chronic, relapsing disease, jeopardises the physical, psychological, and occupational development of young individuals. Both industrialised and developing countries have seen an increase in the incidence and prevalence of IBD in recent decades.² Transitioning patients from paediatric to adult treatment can be done in a variety of ways, depending on the needs and structure of the local healthcare system. ³Recent evidence suggests that a well-coordinated and age-appropriate transition programme can improve disease outcomes in IBD, and it is recommended in UK and European IBD treatment guidelines; however, a better understanding of the impact of IBD-specific transition services on patient-related outcomes and healthcare resource use is needed to develop robust, evidence-based recommendations for IBD transition care.

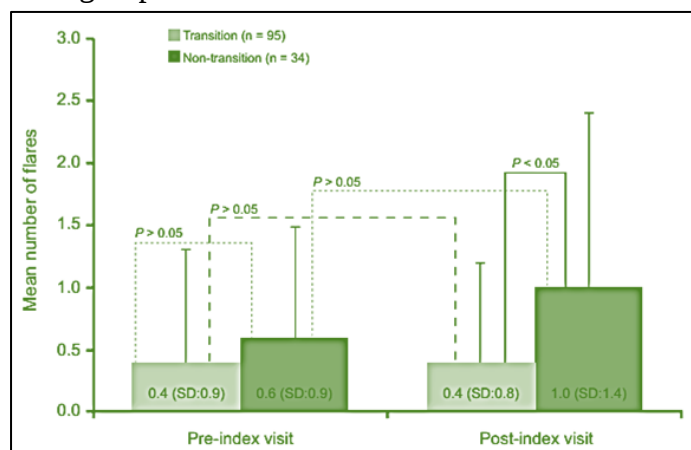
In this study, individuals with IBD (Crohn's disease [CD] and ulcerative colitis [UC]) were compared to see how structured transition care and non-transition care affected IBD-related resource and patient-reported outcomes. ⁴

A retrospective observational study conducted in 11 gastrointestinal centres. Non-transition individuals were shifted to adult services without joint visits after two visits to the gastrointestinal service with both paediatric and adult personnel present. Data was gathered from medical records for the 12-month period preceding and following the first visit for adult IBD services (index visit).



Study design. Number of joint pediatric/adult visits and point of handover to adult team is patient-dependent but >2

Around 129 participants (range: 2–22 per centre): 95 transition patients and 34 nontransition patients. Around half of patients with CD in both the transition and non-transition groups had ileocolonic disease at the time of diagnosis, according to the location component of the Montreal disease classification score (CD only) at diagnosis (48 percent [32/67] and 50 percent [11/22], respectively). Furthermore, the transition group had fewer patients with penetrating illness at diagnosis than the non-transition group (8 percent [5/59] vs 26 percent [5/19], respectively; $P > 0.05$). There was no significant difference in the mean number of flares per patient in the transition versus non-transition groups in the 12 months before to the index visit (0.4 vs 0.6, respectively; $P > 0.05$, with a median of 0 in both groups). The mean number of flares per patient in the 12 months following the initial visit was considerably lower in the transition versus non-transition group (0.4 vs 1.0, respectively; $P > 0.05$), with a median of 0 in both groups. Within groups, there were no significant differences in the number of flares before and after the index visit.



Mean (SD) number of flares per patient in the 12-month periods pre- and post-index visits.

Transition patients had fewer disease flares ($P = 0.05$), were more likely to be steroid-free (71 percent vs 41 percent, $P < 0.05$), and were less likely to have an emergency department visit leading to hospital admission (5 percent vs 18 percent, $P < 0.05$) in the 12 months following their index visit.

This is the first multicenter, real-world study to look at the influence of structured transitions from paediatric to adult care on objective patient outcomes in IBD and hospital resource consumption. In the 12 months following the first adult care visit, there was a significant reduction in flares, a higher prevalence of steroid-free patients, fewer prescribed courses of IBD medication, and fewer emergency visits leading to hospital admission among paediatric patients undergoing structured transition compared to non-structured transition.⁴ Transition care is related with better illness specific and developmental outcomes in teenage IBD patients, according to Cole R et al, and prospective studies of diverse forms of transition care in IBD are needed.⁵ Flares could not be validated precisely since data was collected retrospectively and patients may not have always reported particular flare symptoms to their clinician. As a result, we were only able to utilise a proxy to signal flares (corticosteroid use, medication escalation, or hospitalisation). The quality and completeness of the information routinely documented in patients' medical records is an inherent drawback of all retrospective observational study.⁴

Paediatric IBD patients had better outcomes when a structured transition was made from paediatric to adult IBD treatment care services outcomes.

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Cold Snare Polypectomy Technique: A Randomized Controlled Trial

Clinical guidelines recommend cold snare polypectomy (CSP) for colorectal polyps smaller than 10 mm. CSP, as opposed to hot snare polypectomy (HSP), involves more superficial cutting and less injury to submucosal arteries, reducing the risk of perforation and delayed bleeding.¹ The findings demonstrated that utilising CSP did not raise the likelihood of adverse outcomes, with a 99.3 percent full removal rate. Following colonoscopies, the rate of persistent polyps (4.1 percent) and recurrence (12.2–13.8 percent) were both found to be acceptable. Nonpedunculated big colon polyps have recently been treated with wide-field piecemeal CSP. Although the data for CSP's efficiency in eliminating large polyps is currently limited, certain studies have found that it is a safe and effective approach for resecting colorectal polyps larger than 10 mm.² This study used the standardised CSP approach to conduct a large worldwide multicenter randomised controlled trial of colorectal polyps 10 mm in size randomised to the use of a thin-wire versus thick-wire snare to explore the influence of snare wire thickness on incomplete resection rates (IRR).³

This was a 1:1 allocation ratio randomised controlled study using a parallel design. All patients referred for a colonoscopy who had at least one polyp measuring less than 10 mm in size and no endoscopic indications of suspected submucosal invasive malignancy were eligible to participate. Using percutaneous endoscopic gastrostomy-based regimens, all patients received standardised split-dose bowel preparation. Intravenous procedural sedation was employed, with the endoscopist or under direct anaesthetic monitoring administering it. All of the cases were examined using a combination of high-definition colonoscopes. After complete endoscopic resection, two biopsies (1 on each side of the defect edge) were taken and sent to histopathology as independent specimens for investigation. To reduce the polyp miss rate, polypectomies were performed during insertion or removal at the discretion of the treating endoscopists. Primary outcome - IRR evaluation using a standardised CSP approach with a thin-wire snare versus a thick-wire snare for colorectal polyps less than 10 mm in diameter. Secondary outcomes include CSP procedure details, adverse event rates, and the depth of excision in resected material.

Over the course of 52 months, 1,393 patients who had been referred for a colonoscopy were enrolled. The polyps were 4 mm in diameter on average (interquartile range: 3–5 mm). Narrow band Imaging Classification of

Colorectal Polyps Type II was the most common (442, 67 percent), with lesions in the right colon accounting for 50.8 percent (335/660). The cohort's overall incomplete resection rates (IRR) were 1.5 percent. In all polyps, complete endoscopic excision was achieved. After the first snare excision, 619/660 (93.8 percent) polyps (thin arm; 316, thick arm; 303) were endoscopically judged fully removed. A cold snare protrusion was seen in 189 (28.6%) of the cases, and it was substantially more common in the thick-wire arm than the thin-wire arm (104 (32.4%) vs 85 (25.1%), $P = 0.04$). In 583/659 (88.5%) of resections, polyp tissue was found. The most prevalent histologic subtype was tubular adenomas, which were seen in 394/659 polyps (59.7%); thin-wire arm–210 vs thick-wire arm–184. Low-grade dysplasia was found in 401/659 (60.8 percent) of the participants; thin-wire arm 212 vs thick-wire arm 189.

IRR	Thin wire	Thick Wire	RR (95% CI)	P
All Polyps				
Intention to treat (ITT)	3/339 (0.9)	7/321 (2.2)	0.41 (0.11-1.56)	0.21
ITT^a	3/339 (0.9)	6/321 (1.9)	0.47 (0.12-1.88)	0.33
Per protocol (PP)	3/339 (0.9)	6/320 (1.9)	0.47 (0.12-1.87)	0.33
Polyps 9-10 mm				
ITT	0/12 (0)	0/8 (0)	-	-
PP	0/12 (0)	0/8 (0)	-	-
Adenomas/SSLs only				
ITT	2/252 (0.8)	4/220 (1.8)	0.44 (0.08-2.36)	0.42
PP	2/252 (0.8)	4/220 (1.8)	0.44 (0.08-2.36)	0.42

Primary Outcome of the study

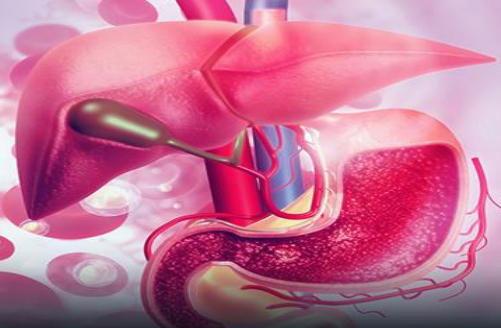
In this large international multicenter randomised controlled trial involving over 600 patients with colorectal polyps. This study shows that CSP of lesions less than 10 mm is effective whether performed with a thin wire or

thick wire snare, with an IRR of less than 2% among endoscopists with a wide range of experience.³ Oh CK, et al showed that CSP can be one of the standard procedures for removing colorectal polyps ranging in size from 3 to 10 mm in patients with end-stage renal illness (ESRD).⁴ Pedunculated colorectal polyps with heads less than 1 cm can be eliminated with CSP, which offers various advantages over hot snare polypectomy, according to Kudo T et al.⁵ Endoscopists obtained complete histologic excision of polyps in more than 98 percent of patients in this large randomised experiment, independent of snare wire thickness. As a result of these findings, it is obvious that snare wire thickness alone does not account for the low IRR rates seen in our study.

CSP was found to be safe and effective in this multicenter randomized trial, with very low rates of incomplete resection regardless of snare wire diameter. This shows that in minimizing residual adenoma after CSP, the ideal operator method is more essential than the snare design alone.

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A case report and literature analysis of systemic lupus erythematosus presenting with visceral muscular dysmotility syndrome and mechanical intestinal blockage that was clinically alleviated by surgery.

Systemic lupus erythematosus (SLE) is an autoimmune disorder. A self-sustaining autoimmune disease is the result of a complicated relationship between defective apoptotic clearance, stimulation of the innate and adaptive immune systems, complement activation, immune complexes, and tissue inflammation.¹ SLE affects several organs, including the GI tract, causing symptoms including intestinal pseudo-obstruction (IPO), mesenteric vasculitis, protein-losing enteropathy, and more. Intestinal blockage without visible organic obstructive lesions, abdominal distension, and sluggish or nonexistent peristalsis are all symptoms of IPO. ² Patients with IPO, pyeloureterectasis, and biliary tract dilatation may all present at the same time in some uncommon circumstances. Generalised megaviscera of lupus (GMV) or visceral muscle dysmotility syndrome (VMDS) are the uncommon triad.³ This case of VMDS with mechanical intestinal obstruction due to SLE is presented in this paper. This is the first time an SLE patient has presented with all of these symptoms at the same time.

This case study is about a 30-year-old patient who had SLE and experienced gastrointestinal symptoms such as stomach pain, nausea, and the inability to pass fatus or stool for no apparent reason. Due to excessive fatulence, the patient experienced acute abdominal distension. The contrast-enhanced computed tomography (CT) of the abdomen revealed localised intestinal stenosis, ureterohydronephrosis, and biliary tract dilatation. A stenotic section in the sigmoid colon was discovered during an endoscopy. The stenosis was induced by inflammatory tissues, according to the colon biopsy samples. Hypoalbuminemia, electrolyte disturbances, and a reduction in C3 were discovered in biochemical tests. Antinuclear antibodies were found to be positive. This patient had a transverse colostomy after a thorough examination. After the procedure, the patient's gastrointestinal issues were clinically relieved.

Systemic lupus erythematosus (SLE) is not just the most well-known systemic autoimmune disease, but it's also one of the most complicated conditions to treat. Diagnosis, therapy, and therapeutic advancements are all hampered by this heterogeneity.⁴ Immunomodulation and immunosuppression are two treatments for SLE that are used to lower disease activity in specific organ presentations. Despite major advancements in treatment, SLE continues to cause significant morbidity and mortality.⁵ A patient with SLE suffered serious intestinal problems in this case. Ineffective intestinal propulsion (IPO) is a rare complication of SLE that is defined as ineffective intestinal propulsion with clinical signs of intestinal obstruction but no mechanical blockage. IPO can show up as the first symptom of SLE. Abdominal discomfort is the most prevalent symptom, followed by nausea and/or vomiting, abdominal distension, diarrhoea, and constipation. All of these symptoms were present in this case.³ Autonomic neuropathy

should be investigated if the patient has a concomitant local intestinal blockage. They should be discovered early and the afflicted segment of the rectum and colon removed, or an initial primary colostomy performed in cases of serious health concerns. Furthermore, enteric neurons could be used as a therapeutic target for SLE in the future.

If a patient with SLE has generalised visceral muscle dysmotility and a radiological scan reveals partial intestinal blockage, doctors should examine the possibility that both VMDS and mechanical intestinal obstruction are present at the same time. Although additional research is needed to determine the best therapeutic option, resection of the blocked intestine or colostomy is advised as a first treatment.

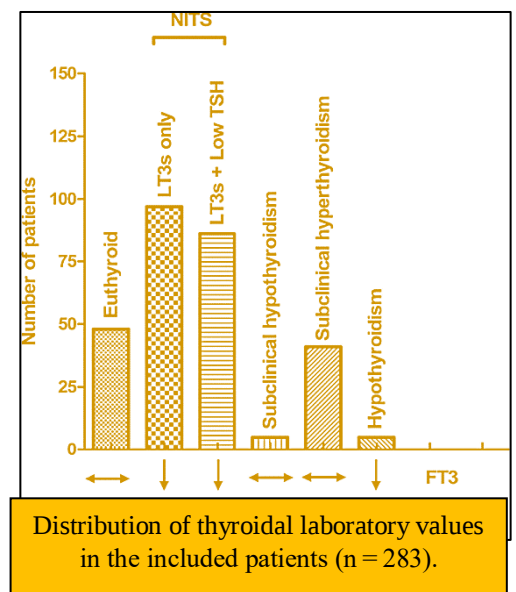
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An eight-year cohort study of patients with acute pancreatitis who have nonthyroidal illness syndrome

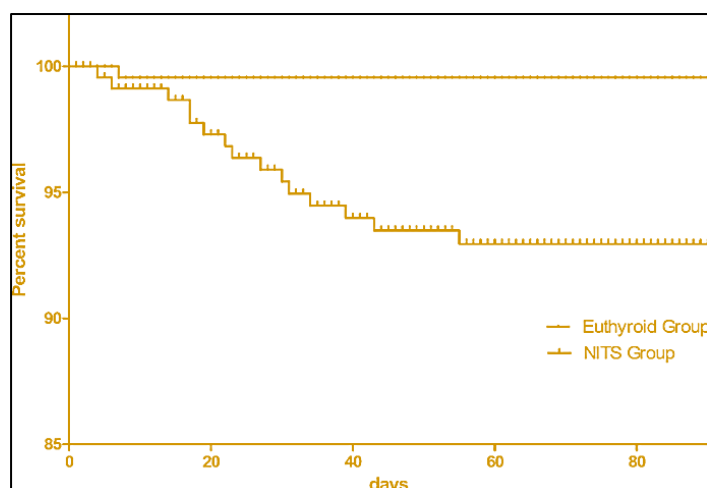
Low serum levels of free and total triiodothyronine (T3) with normal or low thyroid-stimulating hormone describe nonthyroidal illness syndrome (NTIS), also known as the low T3 syndrome or euthyroid sick condition (TSH). These usual alterations in serum thyroid hormone (TH) are distinct from those seen in primary or secondary thyroid diseases, and they pertain to thyroid function distortions that occur without the presence of thyroid illness.¹ Acute pancreatitis (AP) is a pancreatic inflammatory illness that is followed by a systemic inflammatory response.² There have been no comprehensive studies of TH abnormalities, NTIS incidence, or the relationship between NITS and clinical outcome in adult AP patients. The purpose of this study was to assess thyroid function in adult patients with AP, as well as the prevalence, underlying processes, and correlations with clinical characteristics and prognosis of NTIS.

This study assessed all AP cases within 7 days of the commencement of the condition retrospectively. The Atlanta Classification was used to diagnose and classify the severity of AP based on at least two of the three criteria: I abdominal discomfort suggesting AP, (ii) high serum amylase and/or lipase > 3 times the upper limit of normal, and (iii) distinctive AP computed tomography (CT) findings. The study subjects' demographic information, diagnosis, imaging data, and management, as well as their clinical results, were gathered. The chemiluminescent microparticle immunoassay was used to look at serum thyroid hormone levels, including free triiodothyronine (FT3), total triiodothyronine (TT3), free thyroxine (FT4), total thyroxine (TT4), and thyroid-stimulating hormone (TSH). Each patient's APACHE II (acute physiology and chronic health evaluation II) and SOFA (sequential organ failure assessment) scores were manually calculated. Patients were divided into four groups

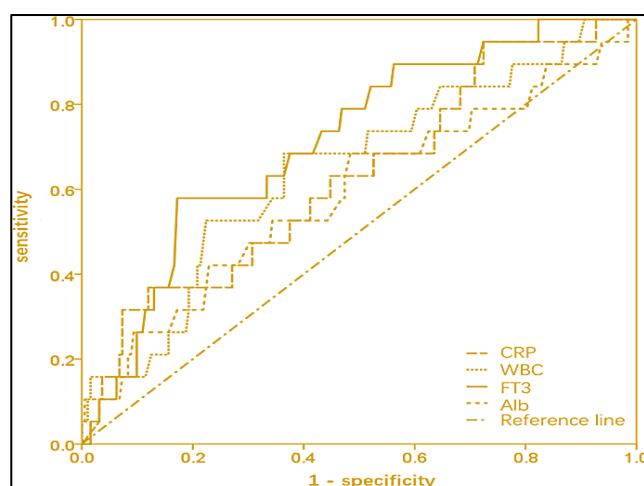


based on symptoms and thyroid function tests performed within 24 hours of admission: euthyroid, NTIS, subclinical hypothyroidism, subclinical hyperthyroidism, and hypothyroidism.

Over the course of eight years, 183 AP patients were diagnosed with NTIS, representing a 64.7 percent incidence. Patients with NTIS were admitted in worse condition than euthyroid patients, with higher APACHE II scores, SOFA scores, Balthazar's CT scores, CRP, and reduced albumin. In addition, these patients spent more time in the ICU (3, 2–10 vs 2, 0–3, days, $P=0.039$) and were more likely than euthyroid patients to develop infected pancreatic necrosis (IPN) (15.3 percent vs 6.3 percent, $P=0.087$) and gastrointestinal fistula (6 percent vs 0 percent, $P=0.082$). When compared to other well-known biomarkers, free triiodothyronine (FT3) had the best performance in predicting death.



The cumulative survival rates in the euthyroid and NTIS groups. *NTIS* nonthyroidal illness syndrome



The ROC analysis of FT3, CRP, WBC and Alb in the prediction of death in AP patients.

The current 8-year retrospective population-based study is the largest clinical evaluation of TH abnormalities and the first to investigate the function of NTIS in AP patients.¹ Non-thyroidal sickness can affect serum thyrotropin (thyroid-stimulating hormone [TSH]) concentration, which is used to detect primary thyroid disease. In critically ill patients, NTIS is thought to be an adaptive mechanism that causes the organism's metabolism to downregulate in order to conserve energy.⁴ Due to the low active organ, severely ill individuals with NTIS may develop issues in the gut, cardiovascular system, kidneys, and other organs. Many tissues in individuals with fatal NTI may be deficient in thyroid hormones, according to Arem R et al, albeit the degree of the drop in thyroid

hormone concentrations varies from one organ to the next.⁵ FT3 may be effective in the development of a therapeutic approach and the ultimate improvement of the outcome when paired with other biomarkers. There are certain limitations to the current research. To begin with, the low mortality rate in this study population makes the ROC curve results prone to bias. Furthermore, because this is a single-centre retrospective study with a small sample size, a link between NITS and clinical outcomes does not necessarily infer causation.

Within 7 days of the commencement of the disease, NTIS is prevalent in adult patients with AP. NTIS is linked to poor admission characteristics and a poor prognosis throughout the course. In AP patients, FT3 could be used as a biomarker to predict death.

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