NUTRITIONAL STATUS DURING CROHN'S DISEASE

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BACKGROUND

Crohn's disease (CD) is often associated with a state of malnutrition that can be explained by decreased dietary intakes, exudative enteropathy and malabsorption. It is a serious complication because of its consequences on morbidity, mortality and alteration of quality of life of patients.

This study was aimed to estimate the prevalence of undernutrition in CD patients and to identify its possible predictive factors.

PATIENTS AND METHODS

This was a retrospective study, involving 59 patients with CD. Body Mass Index (BMI) was used for the assessment of nutritional status, and undernutrition was classified according to WHO classification (profound undernutrition: BMI<15, severe: 15<BMI<17, moderate: 17<BMI<18.5). Epidemiological, social-economic and clinical characteristics of patients were collected from patient files as well as biochemical nutritional markers (hemoglobin, serum albumin, total cholesterol (TC), triglycerides (TG), serum calcium and phosphorus levels).

RESULTS

❑ Table 1 summarizes the main clinical and demographic characteristics of our patients.

❑ The main biological data are presented in table 2.

❑ Undernutrition was observed in **18.6%** of cases. It was moderate in 6 patients, severe in 3 and profound in the other 2 cases.

❑ Among the 11 malnutrisched patients, 9 were hospitalized, 8 had active disease, 2 were on salicylic treatment and only one patient was on imurel.

Table 2: main biological data of patients

Parameter	Result
- Hb (g/dl)	11,47 ± 1,93
- Albumin (g/l)	36,6 ± 8,1
- Total Cholesterol (mmol/l)	3,82 ± 1,47
- Triglycerides (mmol/l)	1,18 ± 0,57
- Calcium (mmol/l)	2,25 ± 0,19
- Phosphorus (mmol/l)	1,22 ± 0,26
- Total Protein (g/l)	71,7 ± 9,24
- CRP (mg/l)	6 (3 – 35)
- ESR (mm)	40 (14 – 70)

the results are expressed as mean ± SD or median (25th - 75th percentile)

Table 1: main clinical characteristics of patients

Variable	
Age (years)	36.52 ± 13.4
Gender (Masculine/Feminine)	29/30
Smoking (%)	18.6
BMI (Kg/m2)	23.16 ± 5.18
Illness duration (months)	36 (12-84)
Active disease/remission (%)	44.1/55.9
Location of the disease%:	
- ileo-colonic	35.9
- colonic	47.8
- ileal	16.3
Patient: hospitalized/ outpatient (%)	57.6 / 42.4
Current Treatment (%):	
- corticosteroids	28.8
- immunosuppressants	37.3
- 5-aminosalicylated acid	15.3
CDAI (Best index)	244.5±69.9
history of intestinal resection (%)	
- grelic resection	15,3
- ileocecal resection	13,6
- partial colectomy	5,1
- total colectomy	5,1

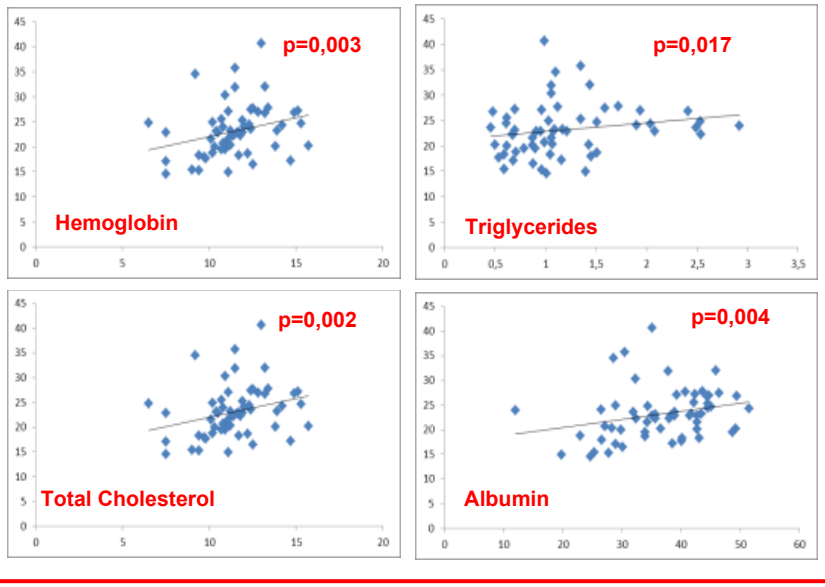

Figure 1: Correlation between BMI and Hemoglobin, Triglycerides, Total Cholesterol and Albumin in CD patients.

❑ No significant association was found between undernutrition and the location of the disease, its duration or the history of intestinal resection.

❑ Statistical analysis had shown a significant association between the risk of undernutrition and the activity of the disease (p=0.037) and CD Activity Index (p= 0,032).

❑ A significant correlation was noted between BMI and hemoglobin (r=0.38; p=0,003), serum albumin (r=0.37; p=0,004), Total Cholesterol (r=0.38; p=0,002) and TG (r=0.31; p=0,017). Figure 1.

CONCLUSION

According to our study, the most predictive parameters of undernutrition in CD patients were: disease activity, hemoglobin, serum albumin, total cholesterol and triglycerides levels.