RATIONALE
Migraine is a complex disease, which is suspected of a major genetic component in its origin. Headache is the most common clinical sign and is usually accompanied by nausea and vomiting. It is estimated that it affects between 12 and 17% of the population. In DAO enzyme deficiency, histamine is not removed and accumulates, causing various disorders, being the most common and disabling migraine headaches. The consumption of certain histamine rich foods (proteins and fats) may be associated with these symptoms.

AIMS
To determine values in blood of the DAO enzyme in patients with frequent episodes of migraines, vomiting and abdominal pain. Assess its evolution after prescription of a low fat diet.

MATERIAL AND METHODS
Interventional prospective descriptive study in patients presenting gastrointestinal symptoms; distinguishing two groups; group presenting vomiting and migraines, and a second group presenting abdominal pains and migraines. In all of them DAO levels and a dietetic review were determined. All of them received fractional and low fat diet (<30% TCA) and dietary counseling, as well as specific pharmacological treatment if necessary. Patients with low and intermediate DAO values, were supplemented with (MIGRASIN®: 1-3 capsules/day). Were considered: low DAO values:<40 DU/ml, Intermediate DAO values 40-80 HDU/ml, normal DAO values >80 HDU/ml.

RESULTS
32 patients were included, all of them with gastrointestinal symptoms. Mean of age: 26.3±18.8; 22 women. Symptoms: 11 patients presented vomiting and migraines; 21 patients presented abdominal pains and migraines (not vomiting). In patients who experienced vomiting and migraines, we found an incidence of 1-3 crisis/month in 45% of patients; in 18% of patients, 6 crisis/year and in 37% of patients 2-3 crisis/year. In ours patients who experienced abdominal pains and migraines, we found a direct relationship between migraine headache and abdominal pains, with an incidence of 2 crisis/month. DAO values: we found intermediate/low activity DAO values in 100% of patients in the group with vomiting and migraines; intermediate/low activity DAO values in 86% of patients in the group with abdominal pains and migraines; normal activity DAO values in 14% of patients. Only 9% of the total of patients presented normal DAO values. After pharmacological treatment and nutritional support with low fat and fractional diet, we found a drastic reduction of the crisis: reduction of 80% in patients with vomiting and migraines and reduction of 50% in patients with abdominal pains and migraine.

CONCLUSIONS
Chronic migraine patients with gastroenterology symptoms, tend to have DAO enzyme below normal figures. Most of ours patients presented low DAO values. With specific drug treatment and a proper dietary advice (low fat diet) these patients can improve their symptoms and contribute to improve their quality of life.