

Serum Glucose Levels and Total Protein Profile in Danube Delta Patients with Fish Diet

**Georgiana Mirela ENE¹, Cristian Lucian PETCU²,
Magda Ioana NENCIU³, Natalia ROȘOIU^{4,5}**

¹“Ovidius” University, Doctoral School of Applied Sciences, Constanta, Romania, e-mail: enegeorgiana.biologie@yahoo.com

²“Ovidius” University, Faculty of Dental Medicine, Department of Biophysics, Constanta, Romania, e-mail: crilucpet@yahoo.com

³National Institute for Marine Research and Development Grigore Antipa“, 300 Mamaia Blvd., RO-900581, Constanta, Romania, e-mail: magdalena.nenciu@gmail.com

⁴“Ovidius” University, Faculty of Medicine, Department of Biochemistry, Constanta, Romania

⁵Academy of Romanian Scientists, Bucharest, Romania, e-mail: natalia_rosoiu@yahoo.com

Abstract

According to literature data, it is recommended that 50% of daily calories come from carbohydrates and recommended protein requirement is 0.8 to 1-1.25 g/kg/body/day. 200 grams of fish provides almost 25% of your daily protein requirement for an adult. It is an important source of protein with high biological value, containing all essential amino acids. The aim of this study was to analyze the benefits of a fish diet among the population of Sulina Town, in the Danube Delta. The batch of patients underwent a set of biochemical tests in the RoutineMed Laboratory of Sulina and they are considered healthy. The novelty of the research is represented by the geographic area covered, as the Danube Delta had no medical analysis laboratory until 2010, when RoutineMed Laboratory was opened in Sulina. Blood samples were collected from 230 patients for the evaluation of the serum glucose levels and total protein. Both women and men were involved in the research and patients were grouped into age ranges: 20-40 years, 40-60 years, > 60 years. The study included 230 patients, 100 male and 130 were female, who declared they eat fish or fish-based products at least once a week.

The values obtained were statistically analyzed using the SPSS v. 20 software and then compared to the ranges considered normal for these parameters. The results obtained showed that patients with a fish-based diet seem to be healthier than those with a diet in which fish meat is scarce, as their blood biochemical parameters values are closer to normal, which leads to the conclusion that including fish and fish products in people's regular diet is beneficial in preventing protein and carbohydrate metabolism disorders and preserving the overall health.

Keywords: Sedum, organogenesis, callus, blue fluorescent light