Dietary Reconstruction Of The Inhabitants Of Thracia Using Multielement Analysis Of Inorganic Part And Isotope Ratio Of Carbon And Nitrogen Of Organic Part Of Bones

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The colony of Apollonia was founded in 610 BC by the city of Miletus in Asia Minor on the site of the present town of Sozopol on the Black Sea coast. The site had a number of desirable characteristics: excellent harbor, good fishing, and an easily defensible location. In 1938 on the shore of the Black Sea was discovered a necropolis of Apollonia. Until now more than 1200 graves were excavated.

Using two different methods based on the determination of elemental concentration of inorganic part and isotope ratio of carbon and nitrogen of organic part of bones the dietary habit of ancient people from Greek colony Apollonia Pontica from Hellenistic period was evaluated.

Using ICP-AES the concentration of Al, Ba, Ca, Fe, Mg, P, Sr and Zn in inorganic part of bones of 54 skeletons excavated in necropolis of the Greek colony from the Hellenistic period (IV – III century BC) was determined. For determination of concentration of copper AAS was used. On the bases of analytical data and knowledge about the correlation between chemical composition of bones and the diet (see e.g. [1]) a conclusion about the dietary habits of the population of Apollonia Pontica was evaluated (one part of results was published in [2]).

Using ICP-MS the isotope ratio $^{13}$C/$^{12}$C and $^{15}$N/$^{14}$N in organic part of bones of 80 skeletons from necropolis of Apollonia Pontica was determined and the dietary habit of the population of the Greek colony was evaluated (see [3]).

The obtained results using these two different methods for evaluation of diet of ancient people are compared and discussed.

References